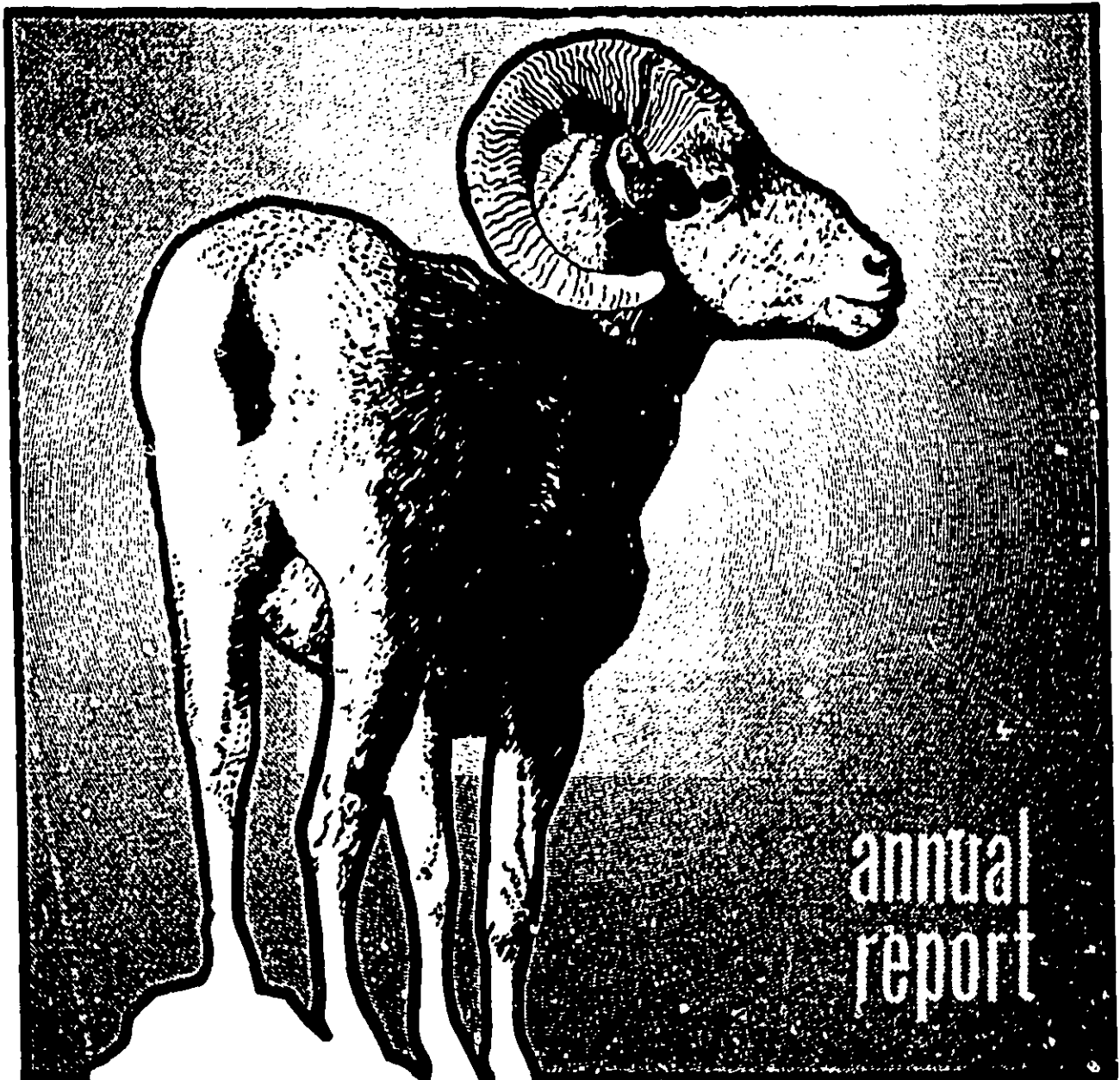


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New Mexico Department of Game & Fish

80th FISCAL YEAR
JULY 1, 1971 - JUNE 30, 1972



State of New Mexico

GOVERNOR
BRUCE KING
DIRECTOR AND SECRETARY
TO THE COMMISSION
LADD S GORDON



DEPARTMENT OF GAME AND FISH

STATE CAPITOL
SANTA FE
87501

STATE GAME COMMISSION
FLOYD TODD, CHAIRMAN
CENTRAL
ALVA A. SIMPSON, JR.
SANTA FE
EDWARD MUNOZ
GALLUP
ALBERT J. BLACK
ALBUQUENQUE
ROBERT H. FORREST
CARLSBAD

July 1, 1972

Honorable Bruce King
Governor of New Mexico
Executive Legislative Building
Santa Fe, New Mexico 87501

Dear Governor King:

It is again my pleasure to submit to you as Governor of the State of New Mexico this report of activities and progress of the New Mexico Department of Game and Fish during the 60th Fiscal Year ending June 30, 1972.

We of the Department feel this was a year of significant accomplishments beneficial to the wildlife resource itself and to the hunters and fishermen and general public of our state. As this report will demonstrate, the Department continues to make satisfactory progress in carrying out its responsibilities despite financial problems and decreasing manpower.

Particularly noteworthy this year was the excellent cooperation and teamwork between this Department, your own office, the State Planning Office, and other departments of state government. We of the Game and Fish Department also appreciate the continued assistance and support of the State Legislature, various federal agencies, and the sportsmen of the state.

I also want you to be aware of the sincere and dedicated work of the members of the State Game Commission in the over-all policy guidance of this Department's programs and activities. Without the cooperation of your office and the many others concerned, we could not serve the people of New Mexico in a meaningful manner.

I and all other employees of the Department of Game and Fish are willing and eager to continue serving the hunters and fishermen and all New Mexico citizens in the highest possible professional manner.

Sincerely,

Ladd S. Gordon
Director



BRUCE KING
Governor, State of New Mexico

NEW MEXICO STATE GAME COMMISSION
June 30, 1972



Floyd Todd, Chairman
Central, New Mexico
Rancher
Appointed 1963 to fill
an unexpired term.
Present term expires
Dec. 31, 1974.



Alta A. Simpson, Jr.
Santa Fe, New Mexico
Businessman & rancher
Appointed in 1963.
Present term expires
Dec. 31, 1972.



Albert J. Black
Albuquerque, New Mexico
Businessman & rancher
Appointed in 1971.
Present term expires
Dec. 31, 1975.



Robert H. Forrest
Carlsbad, New Mexico
Businessman
Appointed in 1972.
Present term expires
Dec. 31, 1976.



Edward Munoz
Gallup, New Mexico
Businessman & county
manager
Appointed in 1969.
Present term expires
Dec. 31, 1973.



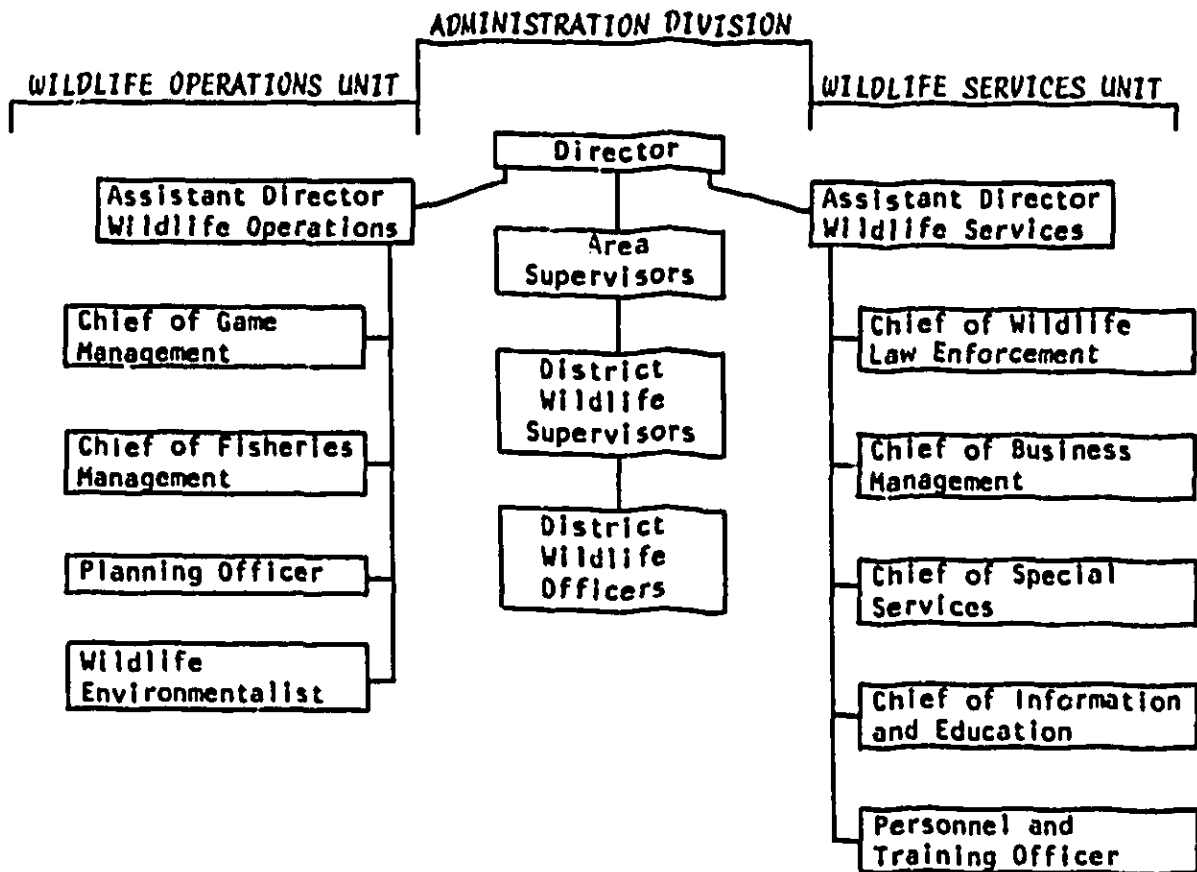
New Mexico Department of Game & Fish

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Annual Report

**60th FISCAL YEAR
JULY 1, 1971 - JUNE 30, 1972**

ORGANIZATIONAL CHART
NEW MEXICO DEPARTMENT OF GAME AND FISH

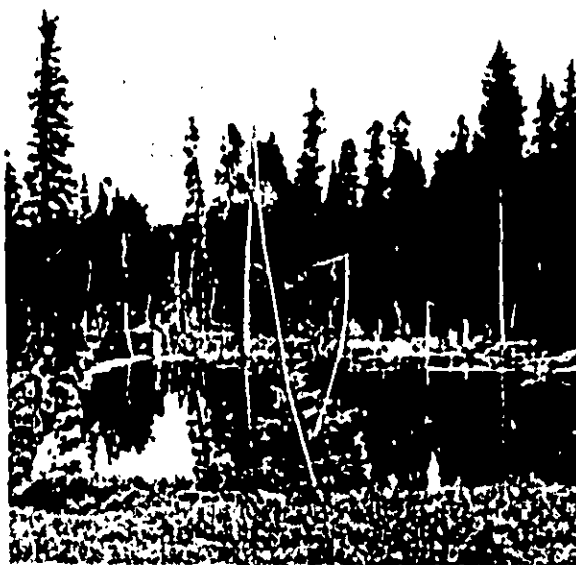


William S. Huey Assistant Director- Wildlife Operations	Ladd S. Gordon Director	William A. Humphries Assistant Director- Wildlife Services
Walter A. Snyder Chief of Game Management	Harold Olson NW Area Supervisor	Theo Burt, Jr. Chief of Wildlife Law Enforcement
R. L. Brashears Chief of Fisheries Management	Marion Embrey SW Area Supervisor	William H. Grahn Chief of Business Management
Fred A. Thompson Planning Officer	Tom Rogers NE Area Supervisor	Edward M. Lang Chief of Special Services
Phil Freeman Wildlife Environmentalist	Jim Yarbrough SE Area Supervisor	Jesse E. Williams Chief of Information and Education
		Donald K. Martin Personnel and Training Officer

District Wildlife Supervisors and Officers and other Department personnel are named on pages 6 and 7.

A Growing Concern for Wildlife

Protection and management of wildlife habitat --- It benefits all wildlife, game and non-game, and it benefits people too, hunters and nonhunters alike, fishermen and nonfishermen alike.



Several significant actions and movements during the past fiscal year testify to a growing concern for wildlife. Administrative and regulatory actions at both the state and national levels demonstrate that wildlife agencies, as well as the sportsmen and general public, are accepting broader responsibilities and interests in the over-all protection, management and enhancement of the total wildlife community.

For the past several years the Department of Game and Fish has taken an increasingly active role in the protection and improvement of the wildlife environment throughout New Mexico. The Department has official representation on the New Mexico Water Quality Control Commission and the New Mexico Coal Stripmining Commission and serves in an advisory capacity for the New Mexico Environmental Institute and other citizen and governmental groups interested in environmental protection.

During the fiscal year the Department took a significant step in this direction by appointing a Wildlife Environmentalist in a staff position at the Santa Fe Office. The Environmentalist will devote full time to the study and assessment of environmental changes which may affect wildlife species. The new position will also enable the Department to maintain closer liaison with appropriate state and federal environmental agencies and provide the vehicle for new programs aimed at the protection of our wildlife environment. This one-man environmental improvement section within the Department will, of course, depend heavily upon the expertise of wildlife biologists and game managers throughout the state in carrying out this assignment, but the position will serve as a focal point in this general area of concern.

Another far-reaching and significant action taken by the State Game Commission during the year was the establishment of regulations prohibiting unauthorized off-road vehicular travel on all lands owned or controlled by the Commission and Department. A similar regulation adopted by the Commission during the year prohibits off-road vehicular travel by hunters and fishermen on state school lands under hunting and fishing easement to the State Game Commission. While these actions may not meet with the immediate approval of all sportsmen who hunt or fish on these lands, the restrictions were deemed timely and necessary to curtail the increased damage to wildlife habitats by indiscriminate off-road travel. There are indications that federal land agencies will soon take similar action to protect our public lands and thus further protect the total wildlife environment.

During the year the Department assumed a new and broader responsibility toward all wildlife by creating a non-game section within the Game Management Division. A non-game biologist has been hired, and the Department will be actively concerned for the first time with certain non-game species, in addition to protected game and fish species. While the Department has no statutory authority or responsibility in this area of wildlife concern it is encouraging to note that New Mexico hunters and fishermen who pay the bill strongly support action that would give the Department such authority. The International

A GROWING CONCERN FOR WILDLIFE

Association of Game, Fish and Conservation Commissioners, the Western Association of State Game and Fish Commissioners, and the New Mexico Wildlife and Conservation Association have all adopted resolutions supporting legislative action to provide the Department with the necessary authority, jurisdiction and funding to manage all wildlife species, rather than just those of direct interest to sportsmen. It is hoped that such legislation will be passed by the New Mexico State Legislature in the near future.

Perhaps the most significant single change in the wildlife picture occurred at the national level. A Presidential Executive Order banned the use of poisons and chemical toxicants for predator and rodent control on federal lands. The executive order also spelled the end to the use of poisons by the U. S. Fish and Wildlife Service for predatory animal and rodent control except in certain emergency situations. In a simultaneous and similar action the Federal Environmental Protection Agency banned the interstate shipment of most poisons and chemical toxicants in a further effort to curb the widespread and indiscriminate use of such controls on wildlife populations. Most professional wildlifers regret that the cause of this action at the national level was the increasing emotional outcry from ill-advised and poorly informed preservationists. Nevertheless, it may result in further actions by Congress and by state legislatures leading to improved techniques for the management of certain predatory and rodent wildlife species.

These are but a few of the more recent and significant actions that demonstrate development in wildlife agencies and the general public of a greater responsiveness to the needs of all wildlife and wildlife habitat. There is a growing concern for wildlife, and professional wildlifers here and in every other state must see that this increased interest continues to best serve the needs of the wildlife community, the legitimate sports of public hunting and fishing, and other public interests.

Environmental Protection

Research points the way for cooperation among state and federal agencies to keep environments healthful for both man and wildlife.



A new Department position, Wildlife Environmentalist, was created April 1, 1972, in response to the passage of the National Environmental Policy Act of 1969 and the New Mexico Environmental Quality Act of 1971, and to the wave of ecological and environmental concern that has swept the country. These acts require the preparation of environmental impact statements on proposals for legislation and major actions that significantly affect the quality of the human environment.

The primary responsibility of the Wildlife Environmentalist is to review such statements received from other state and federal agencies, making field investigations when necessary, and to comment on the proposed projects' effects on the ecology and environment of fish and wildlife. Another major responsibility is the preparation of environmental impact statements required of the Game Department.

The Wildlife Environmentalist will also provide technical advice and assistance on environmental problems, assemble technical data and information from other personnel to assimilate into reports, coordinate the Department's environmental activities with those of other departments and agencies, and represent the Department at meetings where wildlife environment is concerned. A specific example of the last-mentioned will be his service as alternate commissioner for the Director in his capacity as a member of the Coal Strip-mining Commission. The Wildlife Environmentalist will assist in developing departmental policy and programs affecting the wildlife environment. Not the least of his chores will be researching the expanding volume of environmental literature to keep the Department abreast of new developments in this rapidly growing field.

Planning

Careful planning lies behind each successful lake or other project that enhances wildlife habitat while producing recreational and economic benefits for man.



The Planning Office is responsible for long-range planning in the form of development projects. In addition, the office is charged with liaison and coordination with federal and other state agencies, and with other groups concerned with environmental improvement and economic and recreation endeavors.

The services of the New Mexico State Planning Office have benefitted all divisions of the Game Department. The Department Planning Office, however, works in especially close coordination with the State Planning Office.

The Planning Office represents the Department on all Resource, Conservation and Development Projects (RC&D) and enters into deliberation of projects presented to the RC&D where the Department may be involved. There are nine Resource, Conservation and Development projects in the seven state planning districts. The RC&D projects are in all 32 counties. During the year, the Planning Office participated in 55 RC&D Council meetings and 43 RC&D Council Executive meetings.

The Planning Office represents the Department in the initial phases of projects relating to river basins, in water impoundment, dam construction, stream channelization. Twenty such meetings were attended.

The Planning Officer reviews the plans and environmental impact statements of highway construction and makes recommendations. He provides liaison with the Corps of Engineers, Bureau of Reclamation, Soil Conservation Service, and others on projects wherein fish and wildlife may be concerned.

Two projects were developed to utilize funds available through the Bureau of Outdoor Recreation and Four Corners Regional Development Commission.

The Planning Officer represents the Department on the State Water Conference Advisory Board, Land Use Planning Symposium, Water Resources Research Institute Advisory Committee, Soil and Water Conservation District Awards Committee, Regional Environmental Education, Research, and Improvement Organization, Soil and Water District Supervisors' Association, and Rio Grande Chapter of the Soil Conservation Society of America and others where nineteen meetings were attended.

The Planning Officer's files include maps and plans, water rights, proposed and on-going projects of the Department and other agencies, and other related data.

Personnel

To serve the public well, a wildlife field worker must master a wide range of practical skills, as well as highly technical training.



The 60th Fiscal Year was the first full year for the Department to have a fulltime Personnel and Training Officer. During that year numerous personnel matters arose other than routine step raises and promotions, and several new employees were hired and a few left the Department.

Those who retired include: Eddie Ortega from Red River Hatchery; T.J. (Shorty) Lyon, a well-known trapper and outdoor writer, retired in March; Jack Carlson, Foreman of Glenwood Hatchery, retired in August; Virgil Jones, retired because of medical reasons; and Sam Lamb, P-R Coordinator, retired in September.

In May, the Department submitted to the Governor its plan of action for meeting the requirements of the Equal Employment Opportunity Act of 1972. This plan is of major importance to our personnel management.

The Personnel Officer maintains a close working relationship with the State Personnel Office, particularly in overall analysis of Department classifications. A study was initiated during mid-1972 to establish a complete new series of classifications. It will be completed in Fiscal Year 61. A major improvement effected was combinations of the Supervisor and Assistant Division Chief classifications under one classification: Wildlife Supervisor. It is expected that other Game & Fish classifications will also be closely grouped in families after the current study is completed.

Promotional and employment examinations were also reviewed during the year, and the Conservationist Aide examination was significantly modified to be more closely job related. The Department's salary levels were also examined to determine whether they were appropriate for the various employees' education, experience and service time.

This section submits to the State Personnel Office an average of 60 personnel action requests a month. It also responds to 60 to 100 employment inquiries each month.

Training programs were not as extensive as desired, but much was accomplished. An in-service training school was held in Albuquerque during February. The Law Enforcement Division conducted sessions at Taos to instruct new employees about Department regulations and state laws that this Department is authorized to enforce. All newly commissioned employees of this Department are now also being sent through the basic Law Enforcement School at New Mexico Law Enforcement Academy. Personnel of this Department also received instruction on federal firearm laws and the traffic laws and accident investigation. The Personnel and Training Officer assisted the Academy in instructing one basic school.

Considerable time was spent also on interpreting the Occupational Safety and Health

PERSONNEL

Administration Act, which will apply to state agencies. This act affects many of this Department's activities, particularly its farm and hatchery operations.

All of our Department personnel completed the Defensive Driver Training course during the year.

PERSONNEL PER DIVISION (Temporary Positions Excluded)

Administration Division	53
Game Management Division	36
Fisheries Division	34
Law Enforcement Division	5
Information and Education Division	10
Special Services Division	6
Fiscal Division	21
TOTAL	165

FULLTIME PERMANENT PERSONNEL as of June 30, 1972

ADMINISTRATION

Ladd S. Gordon	Director	Santa Fe
William S. Huey	Assistant Director - Operations	Santa Fe
William A. Humphries	Assistant Director - Services	Santa Fe
Donald K. Martin	Personnel and Training Officer	Santa Fe
Fred A. Thompson	Planning Officer	Santa Fe
Phil Freeman	Wildlife Environmentalist	Santa Fe
Orville L. Luttrell	Chief Pilot	Santa Fe
Richard L. Brown	Pilot	Santa Fe
Jody Lorang	Administrative Secretary	Santa Fe
Loretta Sanchez	Secretary	Santa Fe

NORTHWEST AREA

Harold Olson	Area Supervisor	Albuquerque
George Anderson	District Wildlife Supervisor	Santa Fe
Thomas Moody	District Wildlife Officer	Los Alamos-Jemez
Mennen Clement	District Wildlife Supervisor	Farmington
G.A. Caldwell	District Wildlife Officer	Navajo Dam
T.J. Ramsey	District Wildlife Officer	Chama
Ed Sanchez	District Wildlife Officer	Lindrich
Don Price	District Wildlife Supervisor	Albuquerque
Ron Porter	District Wildlife Supervisor	Gallup-Continental Divide
Ron Castleberry	District Wildlife Officer	Farmington
Herman Uhil, Jr.	District Wildlife Officer	Grants
Marilyn Jo Caudle	Secretary-Radio Operator	Albuquerque
Ann Leebelter	Secretary	Albuquerque

SOUTHWEST AREA

Marion Embrey	Area Supervisor	Las Cruces
Jim McCallan	District Wildlife Supervisor	Las Cruces
Bill Essary	District Wildlife Officer	Truth or Consequences
L.A. Turner	District Wildlife Supervisor	Magdalena
Mike Martinez	District Wildlife Officer	Socorro
Dick Barnhart	District Wildlife Officer	Reserve
Hugh Bishop	District Wildlife Supervisor	Silver City
Soi Mayhurst	District Wildlife Officer	Doming
Barbara Benzer	Secretary-Radio Operator	Las Cruces

NORTHEAST AREA

Tom Rogers	Area Supervisor	Anton
Ed Kinsey	District Wildlife Supervisor	Clayton
Charles Cockerell	District Wildlife Officer	Cimarron
Bob Parish	District Wildlife Officer	Tucuman
Gene Salas	District Wildlife Supervisor	Taos
Lee Gordon	District Wildlife Officer	Questa
Ruben Gonzalez	District Wildlife Officer	Las Vegas
Henry Gallegos	District Wildlife Officer	Pecos
Craig Mordyke	District Wildlife Officer	Raton
Eleanor Cuelco	Secretary-Radio Operator	Raton

SOUTHEAST AREA

Jim Yarbrough	Area Supervisor	Roswell
Gary Rickman	District Wildlife Supervisor	Portales
Jack Herring	District Wildlife Officer	Roswell
Jim Vaughn	District Wildlife Officer	Roswell
Ron Elliott	District Wildlife Officer	Santa Rosa
Roy Owen	District Wildlife Supervisor	Alamogordo
George Huxson	District Wildlife Officer	Reidsburg
Leonard Gunce	District Wildlife Supervisor	Carlsbad
Carl Worthington	District Wildlife Officer	Lovington
Waldo Weatherspoon	District Wildlife Officer	Artesia
Mary Eloise Campbell	Secretary-Radio Operator	Roswell

PERSONNEL

GAME MANAGEMENT

Walter Snyder	Division Chief	Santa Fe
Bob Stewart	Assistant Division Chief, Federal Aid Coordinator	Santa Fe
George Merrill	Assistant Division Chief, Game Management	Santa Fe
James F. Johnson	Big Game Project Leader	Santa Fe
Gerald Gates	Big Game Co-Project Leader	Santa Fe
J.E.B. Stuart	Statistician & non-Game	Santa Fe
Anthony J. Campbell	Fort Bayard Study	Fort Bayard
Byron Donaldson	Lion Study	Heart Bar
Frank Smith	Lion Study	Heart Bar
Bob Welch	SW Area Game Manager & Research Supervisor	Las Cruces
William O. Montoya	SE Area Game Manager	Roswell
Dick Raught	NW Area Game Manager	Albuquerque
Paul Farkovich	NE Area Game Manager	Raton
Norma Ames	Wildlife Research Editor	Santa Fe
Howard Campbell	Game Bird Co-Project Leader	Albuquerque
James L. Sands	Game Bird Co-Project Leader	Albuquerque
Thomas P. Zapalka	Game Bird Biologist	Albuquerque
Louis Berghofer	Animal Control Supervisor	Santa Fe
Pete Hughes	Animal Control Officer	Valverde
Alton Ford	Animal Control Officer	Gila
Dwight Bowden	Animal Control Officer	Taos
Donald Graves	Construction Foreman	Santa Fe
Nick Gonzales	Heavy Equipment	Santa Fe
Arthur Crommover	Land Specialist	Los Lunas
Ruberto Acosta	Farm Manager	Bosque
Ernesto Chavez	Farm Aide	Bosque
James C. King	Farm Manager, Artesia	Artesia
George Roberts	Farm Aide	Artesia
Alan Knight	Farm Manager, Jackson Lake and Miller Mesa	Farmington
Jimmie Jackson	Farm Aide	Jackson Lake
George Hightower	Farm Manager, Red Rock	Red Rock
A.D. Stine	Land Manager	Portales
Mary Heckman	Secretary	Santa Fe
Julianne Kadlec	Secretary-Transcriber	Santa Fe
Elvira Apodaca	Account Clerk	Santa Fe
Marie Gallegos	Clerk	Santa Fe

SPECIAL SERVICES

Edward M. Lang	Division Chief	Santa Fe
Leo Martinez	Construction Foreman, Warehouse	Santa Fe
Joe Olonia	Construction Foreman	Santa Fe
Tommy Padilla	Administrative Specialist	Santa Fe
Cesandra Prokopiou	Receptionist-Secretary	Santa Fe
Benny Rivera	Field Construction Assistant	Santa Fe

INFORMATION AND EDUCATION

Jesse E. Williams	Division Chief	Santa Fe
Carl Berghofer	Asst. Div. Chief, Hunter Safety	Santa Fe
Candy Sena	Hunter Safety Assistant	Santa Fe
Rodger McKean	Wildlife Magazine Editor	Santa Fe
Nancy Barnett	Wildlife Magazine Asst. Editor	Santa Fe
John Davis	Television-Radio Program Director	Albuquerque
Jack McDowell	Information Education Officer	Albuquerque
John Goodwin	Information Education Officer	Roswell
Eva Martinez	Secretary	Santa Fe
Nilarlo Vigil	Photography & Printing Specialist	Santa Fe

LAW ENFORCEMENT

Theo Burt, Jr.	Division Chief	Santa Fe
Nando Mauldin	Assistant Division Chief	Santa Fe
Charles J. Bird	Wildlife Enforcement Officer	Albuquerque
Fred L. Turner	Wildlife Enforcement Officer	Santa Fe
Lina Gonzales	Secretary	Santa Fe

FISHERIES

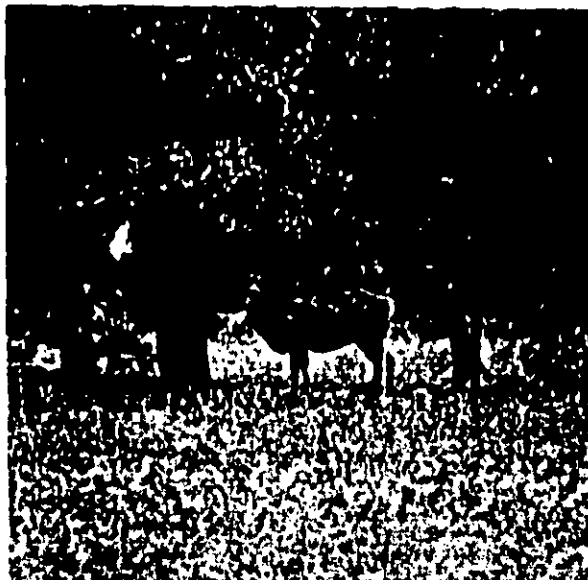
R.L. Brashears	Division Chief	Santa Fe
Ralph Little	Assistant Division Chief - Hatcheries	Santa Fe
Warren McNeil	Assistant Division Chief - Federal Aid Coordinator	Santa Fe
Bruce Melnes	Fisheries Research Project Leader	Santa Fe
Robert Patterson	SE Area Fisheries Biologist	Roswell
Richard McGlesby	NE Area Fisheries Biologist	Raton
James Grasmick	Fisheries Biologist	Santa Fe
Kay Pope	Coordinator of Hatcheries and Foreman Red River	Red River
Carl Moos	Foreman Parkview Hatchery	Parkview
Bobbie Johnston	Foreman Lisbon Springs Hatchery	Pecos
Al Wisdom	Foreman Rock Lake	Santa Rosa
Jim Standifer	Foreman Seven Springs Hatchery	Seven Springs
Leroy Gallegos	Foreman Glenwood Hatchery	Glenwood
Jose Gallegos	Assistant Foreman Red River	Red River
Robert Davis	Assistant Foreman Parkview	Parkview
Manuel Montoya	Assistant Foreman Lisbon Springs	Pecos
George Sontler	Assistant Foreman Rock Lake	Santa Rosa
Johnnie Janissen	Assistant Foreman Seven Springs	Seven Springs
Henry Cortez	Conservationist, Red River	Red River
Thomas Barker	Conservationist, Red River	Red River
Adolfo Quintana	Conservation Aide, Red River	Red River
Edwardo Ortega	Conservation Aide, Red River	Red River
Lionel Santistevan	Conservation Aide, Red River	Red River
Antonio Trujillo	Conservation Aide, Red River	Red River
Robert A. Martinez	Conservation Aide, Parkview	Parkview
Theodoro Martinez	Conservation Aide, Parkview	Parkview
Jose R. Martinez	Conservation Aide, Parkview	Parkview
Frank X. Martinez	Conservation Aide, Parkview	Parkview
Morace Trujillo	Conservation Aide, Parkview	Parkview
Thomas Sena	Conservation Aide, Lisbon Springs	Pecos
Benny Gallegos	Conservation Aide, Lisbon Springs	Pecos
Victor Floris	Conservation Aide, Rock Lake	Santa Rosa
Elise Dean	Secretary	Santa Fe
Josephine Lindberg	Secretary	Santa Fe

FISCAL

William M. Grahn	Division Chief	Santa Fe
Albert Rivera	Office Manager-Chief Accountant	Santa Fe
Margaret C. Martinez	Payroll and Personnel	Santa Fe
Orlando Lopez	IBM Supervisor	Santa Fe
David Roybal	Data Processing	Santa Fe
Flora Martinez	Key Punch Supervisor	Santa Fe
Mary Angie Rivera	Key Punch Operator	Santa Fe
Eva Lucero	Key Punch Operator	Santa Fe
Emilia Callahan	Key Punch Operator	Santa Fe
Jerry Martinez	Assistant Chief Accountant	Santa Fe
Cliff Garley	Property & Purchasing	Santa Fe
Jerry Gallegos	Voucher & Bills Payable	Santa Fe
E. Ben Gallegos	Voucher Assistant	Santa Fe
Anita Thomas	Federal Aid Accountant	Santa Fe
Gene Herrera	Utility & Vehicle Reports	Santa Fe
Tina Herrera	Special License & Reports	Santa Fe
Margie Vigil	Typist	Santa Fe
Margaret Salz	Typist	Santa Fe
Virginia Bohrer	Head Cashier	Santa Fe
Gilbert Alvera	Assistant Cashier	Santa Fe
Richard Bagley	License Room	Santa Fe

Game Management

Prime deer habitat makes prime deer. It also produces recreation, beauty, clean water and air for man.



THE HUNTER - WILDLIFE CONSERVATIONIST

In recognition of the contributions of hunters and fishermen to the conservation and management of our nation's wildlife resource, Governor Bruce King proclaimed September 25, 1971, State Hunting and Fishing Day. The proclamation initiates a tradition of annual hunting and fishing days on the fourth Saturday of each September.

WEATHER AND GAME

The drought of early 1971 had reduced forage on game ranges. In addition, the prolonged deep cold of the winter of 1970-71 had actually killed some browse vegetation in a few areas. These factors combined to severely reduce the antelope and deer fawn crops in certain places.

When the drought of the first half of 1971 finally broke, it did so with the extravagance so typical of New Mexico's weather. Unpaved roads and unprotected soil rushed downstream as we were apparently destined to collect our year's allotment of precipitation in one short period. Various restrictions previously imposed because of drought, however, could be lifted, among them the access closure on the Costilla Grant.

Despite the rains and some early-winter snows, generally dry conditions again prevailed through early 1972. Department personnel were instructed to equip their vehicles with fire-fighting tools. The forests were not as dry as in the previous spring. Although some campfire and smoking restrictions were imposed, the forests were not closed to public use during spring turkey seasons.

BIG GAME SEASONS 1971

Deer

Seasons were similar to those of recent years: Nov. 6-21 in the north, Nov. 20-28 in the southwest, and Nov. 20-Dec. 5 in the southeast. These were buck-only hunts with either-sex validations available for the Black Lake area, the east side of the Black Range, and the Capitans, Sacramentos, and Guadalupe. Either-sex hunting was available season-long in the Cimarron area, the last two days in the Raton-Johnson Mesa area, and Nov. 6-Dec. 19 in the Eagle Nest-Vermejo area. The buck bag limit was changed this year, however, to make spike bucks legal in southern New Mexico. Legal bucks in the northern part of the state were still fork-antlered.

GAME MANAGEMENT

HARVESTS - 1971-1972 Seasons			
SPECIES	HARVEST	HUNTERS	SUCCESS
DEER - Gunhunting	30,799	91,767	33.62
Bowhunting	214	6,541	3.3
ANTELOPE - Gunhunting	1,016	1,632	62.3
Bowhunting		162	0.0
ELK	1,391	7,794	17.8
TURKEY - Fall Seasons	1,286	19,639	6.5
Spring Seasons 1972	409	3,625	11.3
BEAR	681	15,807	4.3
COUGAR	10	55	17.8
BARBARY SHEEP	29	87	33.3
BIGHORN SHEEP	13	24	54.2
JAVELINA	11	56	24.4
PROTECTED FURBEARERS	Not available; no survey conducted		
			AVERAGE SEASON BAG PER HUNTER
SCALD, GAMBEL'S, AND BOBWHITE QUAIL	158,067	19,860	7.96
MOURNING AND WHITE-WINGED DOVES	277,770	24,476	11.35
PHEASANTS	2,861	4,921	0.58
DUCKS	55,871	8,209	6.81
GEESE	2,000	2,672	0.75
DUSKY GROUSE	2,138	1,684	1.27
PRAIRIE CHICKENS	532	602	0.88
LESSER SANDHILL CRANE	2,183	1,241	1.76
BAND-TAILED PIGEONS	2,027	559	3.60

Two-deer seasons ran Oct. 30-Dec. 19 on the Navajo Reservation and Nov. 26-Dec. 12 on the Mescalero Reservation. Entry permits were available for either-sex hunts pre-season in the Hondo Valley west of Roswell and at Mayhill and Oscuro, on weekends during the regular season at Salinas-San Andres, San Andres-Organ, McGregor Range, and Fort Bayard, and post-season at Cuba.

Bowhunts: A statewide, one-deer either-sex bowhunt was open Oct. 16-31. Special areas included: Sugarite Canyon near Raton, Oct. 16-Jan. 2, deer plus turkey; Sandia Refuge, Oct. 16-Jan. 30, two deer; west side of the White Mountains, Oct. 9-Nov. 19, deer, bear, and turkey, and Dec. 6-Jan. 2, deer only; Navajo Reservation, Oct. 2-17.

The statewide deer harvest was down slightly from 1970. The harvest increased in southeastern New Mexico, which accounted for 52 percent of the total, but down in the other three quadrants. The largest decrease was in the northwestern part of the state. The low number of yearling bucks in the harvest there reflected the heavy fawn losses resulting from the long, intense cold spell of winter and the droughts of 1971 and 1972.

For many years, harvest figures have been derived by analysis of questionnaires sent to and returned from a random sample of the year's licensed hunters. This year an additional survey was made. Another group of hunters, again chosen at random, were contacted by telephone and asked about their hunting success. The hunter success figure derived from the phone survey differed from that produced by the card survey by less than one-half of one percent.

GAME MANAGEMENT

Bear

Bear season opened Aug. 7 and ran thru the deer seasons in the north and southeast and thru Dec. 12 in the southwest. An additional area was closed, that southeast of Deming. The bear bag limit was changed this year to exclude females followed by cubs and cubs less than a year old.

The drought caused more bears to leave the less accessible areas in search of forage, and there were frequent news reports of the Department's bear depredation control efforts. Quite likely these factors contributed to the increases in hunter pressure, harvest, and hunter success.

Turkey

Fall turkey seasons, where open, ran concurrently with the regular deer seasons. Closures were the same as in 1970, with one exception: the Lindrith area was opened.

The following table indicates the areas open in spring of 1972 and the tags available. In addition, the Jicarilla and Navajo Reservations were also open, but no figures are available on hunter participation and success there, other than that 33 tags were issued for the Jicarilla Reservation. The spring drought was not as severe as in 1971, but dryness and gusty winds did affect hunter success in several areas, by making it difficult to call turkeys up to the gun. In the northeast area, there was a snowstorm opening morning. Hunter success overall was slightly lower than in 1971.

SPRING TURKEY SEASONS - 1972					
	CAPITANS	SACRAMENTOS	SOUTHWEST	MT. TAYLOR	NORTHEAST
Tags authorized	1,500*	2,000*	1,800	300	600
Hunters afield	437	1,210	1,374	202	402
Harvest	33	106	188	7	75
Percent success	7.6	8.8	13.7	3.4	18.7

*Applications lacking. Actual issue: Capitans 741; Sacramentos 1,855.

Squirrel

Open areas were the same as in 1970, except that the area southeast of Deming was closed. The northeast area was split to give a longer season, Sept. 11-26, to the T-A Grant and Carson Forest areas. The season in the rest of the northeast closed Sept. 19. In the southwest, grouse season ran Sept. 4-6 and squirrel Sept. 4-19. Limits were the same as in 1970, except for the southwest where the squirrel bag and possession limits dropped to 5 and 10.

Cougar

New Mexico's first legally established cougar season was open November 20, 1971, through March 31, 1972, in the southwestern quadrant of the state. The bag limit was one lion, except a female followed by a kitten, and except a kitten less than a year old.

Three of the 58 persons licensed (54 residents and 4 nonresidents) did not hunt. Those afield took 10 lions, 6 adult males and 4 adult females. The hunters reported releasing 34 other lions, which had been treed but which were either illegal or not of desirable trophy size.

A sixth of the hunters hired professional guides, and almost all hunters used dogs, most of which were borrowed or rented dogs. Much of southwestern New Mexico's good lion country was not hunted. Most of the hunters concentrated their efforts in the Burro Mountains and the west side of the Mogollons. The Black Range, the Datil and the Gila Wilderness were the next favorite areas. During the open season, there was no one period during which lion hunting was best; kills were made during each month of the season. Both the successful and the unsuccessful hunters spent an average of 10 1/2 days afield.

Our three-year lion research project in southwestern New Mexico is now underway. The project will analyze lion populations, determine habitat requirements, develop tracking techniques, collect harvest data, and determine the characteristics and attitudes of lion hunters and the general public toward harvest and management of lions. The Sierra Club has donated \$2,000 to the project.

SPECIAL SEASONS 1971 - The Hunting Record							
SPECIES AND AREA		HUNTERS AFIELD	HARVEST				SUCCESS
ANTELOPE			Adult Male	Adult Female	Young	Total	
Northwest	77		48	10	5	63	81.8%
Tres Piedras Bow	162						0.0
Tres Piedras Gun	161		128			128	79.5
Northeast	835		413	85	42	540	64.7
Southeast	369		204	34	5	243	65.9
Southeast Sandhill	190		42			42	22.1
Totals - Antelope	1,794		835	129	52	1,016	56.6
ELK - Public Hunts			Adult	Calf		Total	
General Bull	5,350		585			585	10.9
Roque-Rio Chama	30		15	11		26	86.4
Taos	98		38	7		45	45.7
Picuris	37		5			5	14.3
Pecos	199		95	21		116	58.3
Ocate-Huilett	47		12	9		21	44.8
Southwest	473		88			88	18.7
Tres Piedras	260		60	20		80	31.7
Kaiser	147		Not available			23	15.6
Totals - Public Hunts	6,641					898	13.5
Private Land Hunts							
Chama	561		74	3		77	13.7
Eagle Nest-Vermejo	362		278	19		297	82.1
Cimarron-Norton	188		96	10		106	56.1
Johnson Mesa	25		4			4	16.7
Jicarilla	17		9			9	52.9
Totals-Private Hunts	1,153		461	32		493	42.8
Totals - Elk	7,794					1,391	17.8
BARBARY SHEEP			Male	Female		Total	
Canadian	57		10	8		18	31.6
Roswell	30		8	3		11	36.6
Totals-Barbary Sheep	87		18	11		29	33.3
BIGHORN SHEEP							
Pecos	5						0.0
Sandia	3		1			1	33.3
Gila North	5		5			5	100.0
Gila South	5		1			1	20.0
San Andres	6		6			6	100.0
Totals-Bighorn Sheep	24		13			13	54.2
JAVELINA			Adult Male	Adult Female	Young	Total	
Southwest	45		7	3	1	11	24.4

Elk, Antelope, Barbary Sheep, Bighorn Sheep, Javelina

Javelina hunting was again available; our last open season was in 1968. The Barbary sheep area near Roswell was again open after last year's closure. Of great interest to nonresidents was the one nonresident bighorn license authorized for the Mexican desert bighorn hunt in the San Andres National Wildlife Refuge.

The accompanying tables summarize the 1971 hunts on these species.

SPECIAL SEASONS 1971 - The Hunting Opportunity						
SPECIES AND AREA	SEASON DATES	BAG LIMIT	APPLICANTS FOR PUBLIC LICENSES*	LICENSES ISSUED		
				Public Landowner	Total	
ANTELOPE						
Northwell	Sept. 25-Sept. 26		367	63	16	79
Tres Piedras Bow	Aug. 21-Aug. 29	Either sex	162	162		162
Tres Piedras Gun	Sept. 4-Sept. 10	Either sex	1,441 (6P)	151	42	193
Northeast	Sept. 4-Sept. 5	Buck & either sex	2,008 (8P)	655	184	839
Southwest	Hunt cancelled					
Southeast	Sept. 25-Sept. 26	Buck & either sex	2,462	308	83	391
Southeast Sandhill	Sept. 25-Oct. 1	Buck only	720 (1P)	165	34	199
Totals - Antelope			7,160 (15P)	1,504	359	1,863
ELK - Public Hunts						
General Bull	Oct. 2-Oct. 10	Mature bull	5,554	5,554		5,554
Roque-Rio Chama	Dec. 11-Dec. 19	Either sex	714 (63P)	30		30
Taos	Nov. 27-Dec. 5	Antlerless	321 (2P)	100	5	105
Picuris	Nov. 27-Dec. 5	Antlerless	136 (2P)	50	1	51
Pecos	Nov. 27-Dec. 5	Antlerless	703 (20P)	225	15	240
Ucate-Meblett	Nov. 27-Dec. 5	Antlerless	119 (6P)	50	2	52
Southwest	Sept. 25-Oct. 3	Mature bull	1,114 (8P)	500		500
Tres Piedras	Jan. 8-Jan. 16, 1972	Antlerless	1,948 (51P)	250	23	273
Kaiser	Nov. 6-Nov. 21	Either sex	2,836 (17P)	147	2	149
Totals - Public Hunts			13,445* (169P)	6,906	48	6,954
Private Land Hunts						
Chama	Nov. 6-Nov. 21, & Dec. 11-Dec. 19	Either sex			571	571
Eagle Nest-Vermejo	Nov. 6-Dec. 19	Either sex			560	560
Cimarron-Raton	Nov. 6-Nov. 21	Either sex			24	24
Johnson Mesa	Nov. 6-Nov. 21	Mature Bull				
Jicarilla	Oct. 9-Oct. 17, & Dec. 11-Dec. 19	Mature bull			14	14
Totals - Private Land Hunts					1,217	1,217
BARBARY SHEEP						
Canadian	Dec. 4-Dec. 12	Either sex, 15"+ horns	201	38	25	63
Roswell	Jan. 15-Jan. 23, 1972	" " " "	187	15	15	30
Totals - Barbary Sheep			388	53	40	93
BIGHORN SHEEP (San Andres hunt for desert bighorn; rest for Rocky Mountain)						
Pecos	Sept. 18-Sept. 26	Ram, 3/4 curl or 1 1/4	122	5		5
Sandia	Dec. 11-Dec. 19	Boone & Crockett	128	3		3
Gila North	Oct. 16-Oct. 24	points by doubling	42	5		5
Gila South	Oct. 16-Oct. 24	reading of longest	25	5		5
San Andres	Oct. 16-Oct. 24	horn	357 (57HR)	6 (1HR)		6
Totals - Bighorn Sheep			674	24		24
JAVELINA						
Southwest	Feb. 26-Mar. 5, 1972	Either sex	655	50		50

*At application deadline and by area of first choice.

P-Number of preferred applicants included.

*Tres Piedras and Kaiser each had separate application deadlines.

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BIRD SEASONS 1971

Quail

Statewide, quail populations were considerably lower than those of 1970, largely because of the severe drought. Season length (Oct. 30-Jan. 2) and limits (15 in the bag, 30 in possession) were kept the same as those of 1970. The harvest data of many years and the Madera quail study strongly indicate that quail density is of greater importance than season lengths and limits in determining harvests and that ample breeding stock remains the following spring despite liberal seasons.

This was the second year that Mearns' quail were legal game. Likely few were taken, however, because the species is secretive and inhabits relatively inaccessible areas.

Doves

The dove season again paralleled that of the previous year: Sept. 1-Sept. 30 and Nov. 27-Dec. 26 with bag and possession limits of 10 and 20. Numerically, doves make up more than 55 percent of the state's game bird harvest. These are chiefly mourning doves since whitewings occur in smaller numbers and only in southwestern New Mexico.

Pheasants

The hunt was again a two-day season (Nov. 27-28) with a limit of two cocks per day.

Ducks

Pacific Flyway seasons (Oct. 16-Jan. 16) and limits (6 and 12) and Central Flyway hunts (Oct. 23-Jan. 16) and point-system limits were the same as those for 1970. No special point-system permit was required this year, however, and hunting hours were the same for both flyways. The 1971 season was better than average. Hunters proficient at identifying ducks in flight like the point system. Under it, they can take more ducks than they could under fixed bag limits.

A special teal season was open Sept. 18-26 in Bernalillo, Chaves, Dona Ana, Eddy, Sierra, Socorro, and Valencia Counties with limits of 4 per day and 8 in possession.

Geese

The Pacific Flyway season was open south of U. S. 66 only Oct. 16-Jan. 16 with limits of 2 per day or in possession. In Sandoval, Sierra, Bernalillo, Valencia, and Socorro Counties, the season ran Jan. 1 thru 16 with limit of 1 and 2. In the rest of the Central Flyway, the season was Oct. 23 thru Jan. 16 with limits of 2 and 4. Hunting from blinds was available Jan. 1 thru 16 on the bosque refuge where limits were two per day or in possession and only snows, blues, and Ross's might be taken. Shooting hours were the same in both flyways: from one-half hour before sunrise to sunset.

The five counties in the Central Flyway with the shorter season comprise the wintering area for the Hi-Line population of Canadas that have used this area less in recent years because they now stop at managed refuges in Colorado. The 1971 harvest and success figures for the Middle Rio Grande Valley were far below the average of the period 1957-1971.

Grouse

For season dates, see BIG GAME SEASONS 1971 - Squirrels. Limits were three per day and 6 per season in the northeast and three per season in the southwest. The 1971 grouse season was more successful than that of 1970.

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Prairie Chickens

Season length (three days, Dec. 4-6) and bag limit (3 per day) were the same as those for 1970, but the possession limit was removed. For the second consecutive year, harvest, hunter success, and hunters afield declined.

Cranes

Area and limits (3 and 5) were the same as in 1970, but the season (Oct. 30-Jan. 30) was three weeks longer. Fewer hunters were afield, but the harvest rose, perhaps because of the longer season.

Band-tailed Pigeons

This year's season (Sept. 11-Oct. 3) was both earlier and longer than in 1970. The season was again a statewide one with limits of 5 per day and 10 in possession. More permits were issued: 858 as compared to 716 for 1970. The 1971 harvest was much more successful than that of the previous year; most of it comes from southwestern New Mexico. Poor pigeon production, however, may be indicated by the low number of immature birds disclosed by the wing samples turned in by hunters and by the trapping project earlier in the year.

A LOOK AT FUTURE SEASONS

In May, the State Game Commission set the big game seasons for fall of 1972. Among the innovations were three hunts for muzzle-loading rifles only, our first spring bear hunt, a cougar season in northeastern New Mexico, a Barbary sheep hunt in Largo Canyon, and a nonresident bighorn license each for the Pecos and Glenwood areas. The Commission also voted to phase out the preferred application system for elk and antelope licenses. When this system was first established, it seemed unlikely that the number of preferred applicants would grow to the point that, for some areas, they far outnumbered the available licenses. That has happened, however, and the last years that preferred applications will be accepted will be 1974 for elk and 1976 for antelope.

The Game Department's policy has been to provide as much hunter opportunity as possible without endangering the game resource. Hunter numbers have increased, however, and hunters now have more leisure time, more money to spend on recreation, and improved recreational vehicles. Deer-hunter congestion in the field has increased accordingly. Quite likely the illegal kill has also increased. In western states, the average size of a district that a game-law officer must patrol is 1,319 square miles; in New Mexico it is 3,687 square miles.

This is a problem common to many states, in a few of which systems to limit this pressure have already been imposed. The experiments have decreased hunter pressure but have also, understandably, decreased revenue and increased administrative expenses. In one case, hunter limitations probably turned far more prospective hunters away than was needed for the desired reduction in hunter pressure, and license revenues, required for wildlife management, dropped by \$2 1/2 million.

At the May meeting, therefore, a recommendation was presented to the Commission to limit each deer hunter to either the northern or the southern half of the state, according to the hunter's choice. Because of opposition from organized sportsmen's groups, however, the Commission postponed action on the recommendation. The system, or other systems to limit hunter congestion, will be considered at future Commission meetings.

Decisions on this and other features of future big game seasons will be affected by the results of a survey conducted in spring of 1972 in which 10,000 hunters, randomly selected, were asked their opinions of New Mexico hunting seasons. The survey showed these attitudes: Eighty-five percent of those surveyed thought the Game Department was managing fish and wildlife adequately. Deer are our most popular game animals; over

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89 percent of the respondents hunted deer. Over 43 percent of them bought the big game hunting license. Eighty-one percent of the hunters preferred opportunity to hunt over restricted opportunity with increased success. Seventy-one percent preferred hunting every year without special permit to hunting every other year on a permit system. Most of the hunters expressed interest in an elk season with unlimited bull licenses and limited numbers of cow validations. They also showed interest in increased opportunity to hunt antelope despite a lower hunter success. Seventy-five percent liked the Department's exotic animal program.

LICENSES ISSUED TO NONRESIDENTS - 1971 Seasons			
SPECIES	TOTAL ISSUE	ISSUED TO NONRESIDENTS	
		Number	Percent
Public Licenses			
Elk	6,906	670 ^a	9.7
Antelope	1,504	43	2.9
Barbary Sheep	53	7	13.2
Bighorn Sheep	24	1	4.2
Javelina	50		0.0
Deer ^{aa}	111,858	8,315	7.4
Additional Deer	575	208	36.2
Bird ^{aa}	53,403	1,760	3.3
Landowner Licenses			
Elk	1,217	691	56.8
Antelope	359	70	19.5
Barbary Sheep	40	8	20.0

^aIncludes 595 licenses for general bull season.

^{aa}Combination licenses are included in both categories.

ORIGIN OF NONRESIDENTS PARTICIPATING IN 1971 SPECIAL SEASONS											
STATE	ELK	ANTELOPE	BARBARY SHEEP	BIGHORN SHEEP	TOTAL	STATE	ELK	ANTELOPE	BARBARY SHEEP	BIGHORN SHEEP	TOTAL
Alabama	4				4	Nebraska	2	1			3
Arizona	52	9	3		64	Nevada	10				10
Arkansas	59				59	New Hampshire			1		1
California	147	8	1		156	New Jersey	9				9
Colorado	20	8	1		29	New York	12				12
Connecticut	2				2	North Dakota	1				1
Delaware	1				1	Ohio	11	1			12
Florida	21	2			23	Oklahoma	102	13	2		117
Georgia	4				4	Pennsylvania	14				14
Illinois	10	4			14	South Carolina	3				3
Indiana	17				17	Tennessee	7				7
Iowa	4	1			5	Texas	733	61	5		799
Kansas	22	1			23	Utah	3				3
Kentucky	2				2	Virginia	8	1			9
Louisiana	24				24	West Virginia	1				1
Maryland	1				1	Washington	1				1
Michigan	7		1		8	Wisconsin	1				1
Minnesota	3		1	1	5	Wyoming	2				2
Mississippi	5				5	Mexico	16	1			17
Missouri	11	1			12	Unknown	9	1			10
						Totals	1,361	113	15	1	1,490

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FURBEARER SEASONS

The season was open year-round on raccoon, badger, weasel, nutria, fox, and ringtail. North of U. S. 66, beaver and muskrat season ran Nov. 1, 1971, thru March 31, 1972, with an earlier opening date, October 1, 1971, in the drainages of the San Juan and Chama Rivers. South of U. S. 66, beaver and muskrat season ran December 1, 1971, thru March 31, 1972. No beaver trapping was permitted on any lands, public or private, within the exterior boundaries of national forests, with the exception of private lands in the San Francisco River valley within the Gila National Forest.

Two fur dealers were licensed during the fiscal year.

Questionnaires were not sent to licensed trappers this year, so no fur harvest figures are available.

ACCESS FOR HUNTERS

Through hunting and fishing easements on various lands, the State Game Commission continued to provide sportsmen with access to many acres of fine game habitat such as the Costilla Grant and the State-owned lands. The State Land Office provided a welcome service, particularly to hunters, by making available a series of land-status maps at \$1.50 each. Maps for 16 counties were ready for use in the fall 1971 hunts. These were particularly welcome because the U. S. Forest Service has been unable to continue printing the forest maps used by so many sportsmen.

During hunting seasons, vehicular restrictions were in effect on some lands, Department and other, to protect game habitat. The Forest Service closed many roads in the Pot Creek Grant to vehicles to avoid forcing elk and deer out into other areas.

The 480,000-acre Vermejo Ranch in northeastern New Mexico, an area of prime game habitat, is for sale at \$26 1/2 million. During the year, sportsmen followed with great interest the progress of various attempts to provide funding that would permit acquisition of the ranch as a public recreational area. The interest and the attempts will continue in the forthcoming year.

GAME REFUGES

There was only one refuge change during the fiscal year, addition of 9,000 acres to the San Juan Refuge in San Juan County, largely for the benefit of waterfowl. Thus, a total of 249,318 acres were in state refuge status in New Mexico at the close of the fiscal year.

ROADS, ROAD KILLS, AND VEHICLES

Figures on road kills of game were not collected for calendar 1971.

The Department reviewed various proposals for road construction in several areas and rendered opinions on the effects of the construction on wildlife and wildlife habitat. Agencies proposing environment-changing projects such as roads must now prepare statements of the projects' environmental impact and submit them to agencies such as ours for comment. This may enhance the Department's effectiveness in pointing out --- if not preventing --- possible damaging effects of roads on wildlife habitat.

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Particularly with the improvement and increased availability of snowmobiles and other all-terrain vehicles, the effects of off-road use of vehicles on wildlife habitat has become increasingly a matter of concern. The Western Association of State Game and Fish Commissioners has initiated a study of this problem. The Game Department this year prohibited use of vehicles off established roads on those State lands on which it has a hunting and fishing easement. It also continued in effect similar restrictions on its own properties. President Nixon's Executive Order 11644 of February 8, 1972, directed the Secretaries of the Interior, Defense, and Agriculture to develop and issue regulations to control and direct off-road use of vehicles on public lands so as to protect the resources of those lands.

DISEASE

Research continues to find an effective way to control elaeophorosis, the bloodworm disease that affects elk in some parts of New Mexico, the southwestern quadrant in particular. The disease has recently been reported in deer in the coastal plains of Florida, Georgia, and South Carolina and in moose in Montana. In the Gila area in New Mexico, the disease causes losses of up to 80 percent of the elk calves.

PREDATOR AND NUISANCE ANIMAL CONTROL

The Game Department's responsibility for control of problems caused by game species and protected furbearers means additional work when a large, formerly unprotected predator is moved into the status of a game animal. Our new charge, the cougar, made such demands on us this year, but control was accomplished with the taking of only five lions.

Control of individual depredators is vital lest heavy economic losses lead to demands that the entire species be denied legal protection. When possible, depredators are removed to remote areas. If they must be killed, the meat and pelt are salvaged whenever possible.

Bear depredations increased this year because of the lack of natural forage resulting from the prolonged droughts of 1971 and early 1972.

	BEAR	LION	DEER	MUSKRAT	BEAVER	BOBCAT	COYOTE
Complaints received	68	23		3	94		
Depredation permits issued	30	12	17	2	1		
Number of animals covered by permits	31	12	120	150	4		
Animals taken live and transplanted	56				11		
Animals killed	16	5	52		196	72	617

The 30 depredation permits for bear involved Catron (2), Colfax (4), Grant (8), Hidalgo (1), Lincoln (2), McKinley (2), Mora (1), Otero (2), Rio Arriba (2), San Miguel (1), Sierra (3), Taos (1), and Valencia (1) Counties. The 17 deer permits were for Lincoln (5), McKinley (2), Otero (9), and Rio Arriba (1) Counties. The 12 lion permits were for Bernalillo (1), Catron (1), Colfax (2), Grant (2), San Miguel (5), and Socorro (1) Counties. The beaver permit was for Union County and the muskrat permits for Chaves and Sierra Counties.

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RESTORATION AND INTRODUCTION OF GAME SPECIES

Restoration of Native Mammals

The year's most important project to restore native mammals was the exchange in January 1972 of 50 antelope, trapped in the Raton area, for five desert bighorn sheep, taken from the desert mountains of Sonora, Mexico. The project evidenced excellent cooperation among the governments of Mexico, the United States, and the State of New Mexico.

The pronghorns desired by Mexico were successfully transplanted to the San Luis Potosi area and several fawns were observed there this spring. Department personnel accomplished the transplant with the help of a cargo plane furnished by the U. S. Navy. Department personnel took the five bighorn ewes by shooting them from a helicopter with tranquilizing drugs. The animals were trucked to Red Rock and released in the Department's game pasture there. All five ewes proved to be pregnant and the first lambs arrived in late January.

The desert bighorn is probably the rarest big game trophy on the North American continent and surplus animals from this little captive herd are to be used to restock historic desert bighorn range in New Mexico. Small wonder, then, that the new lambs were taken from the ewes and bottle-raised to give them all the help and protection possible. Mrs. Verna Hightower, wife of George Hightower, Department employee at Red Rock, undertook the foster-mother chore.

The Department's success in capturing the sheep with tranquilizer guns gained for the Department permission to use this method to take desert bighorns from the San Andres National Wildlife Refuge --- one ram in April 1972 and one ram and five ewes in October 1972. We have tried previously to take bighorns there by trap, but with little success. A two-year-old ram, therefore, was taken in April and added to the Red Rock breeding herd.

Game Conservation International, a worldwide sportsmen's organization often referred to as Game Coin, donated \$7,500 to this wildlife exchange --- \$2,500 to Mexico and the remainder to the New Mexico Department of Game and Fish to help offset costs of building holding pastures for desert bighorns at Red Rock. The donation was presented after a meeting of Department officials and State Planning Officer David King with the Game Coin Executive Board in Fort Worth, where films of the antelope trapping and release and bighorn capture were shown.

The only feature to mar this successful wildlife exchange was the crash of the Department helicopter during the antelope trapping. Both Pilot Dick Brown and I & E Chief Jesse Williams were injured. Mr. Williams' injuries were critical, but he is recovering satisfactorily.

During the fiscal year, the decision was reached to abandon plans to establish huntable herds of bison in New Mexico. Reasons include the unavailability of release sites and the experience of other states that the hunts seldom prove sportsmanlike because of the animal's docility. The Fort Wingate herd was therefore placed on sale, except for a nucleus herd to be kept there for viewing purposes. The 115 animals sold to the highest bidders brought an average of \$330 a head.

Foreign mammal Introductions

An additional five oryx were released during the fiscal year on White Sands Missile Range, three bulls and two cows. This brings to 20 --- 10 bulls and 10 cows --- the number of oryx released there. Reports have been received of calves born on the range in 1970 and 1971.

Last year, it was decided that the greater kudu should be eliminated from the exotic

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Introduction program because the species apparently would adapt to New Mexican conditions only with great difficulty. Opposition to this move and public disagreement about the entire program lead Governor Bruce King to appoint a Task Force on Exotic Mammals, directed by State Planning Officer David King, to evaluate the program. The Task Force appointed Eugene Decker, Professor of Wildlife Science at Colorado State University to conduct the investigation and evaluation. His report is expected in September 1972.

Deaths, births, sales, and exchanges resulted in the following inventory as of June 30, 1972:

SPECIES	RED ROCK			ZOO		TOTALS			
	Male	Female	Unclass.	Male	Female	Male	Female	Unclass.	Total
Persian gazelle		2		1	4	1	6		7
Iranian ibex	8	14	19	2	4	10	18	19	47
Siberian ibex	6	11	7	3	6	9	17	7	33
Kudu				9	9	9	9		18
Markhor				1	4	1	4		5
Oryx	9	12	13	4	9	13	21	13	47
Red sheep				7	23+1Uncl.	7	23	1	31
Desert bighorn sheep	4	6				4	6		10
Totals	27	45	39	27	59+1Uncl.	54	104	40	198

FALCONRY

The 1971 Legislature's extension of protection to hawks, owls, and vultures made necessary the Department's formulation and adoption of policies and rules to permit the taking and possessing of raptors for certain purposes and their use in falconry. To aid agencies in screening applicants for falconer permits, the North American Falconers' Association has developed model examinations and guidelines for falconry facilities. The Game Department adapted these for its use and, during the fiscal year, New Mexico's first falconer permits were issued.

Six beginner and 12 advanced permits were issued to applicants who had passed the comprehensive examination and provided approved falconry facilities. Some of the other applicants who failed to pass the rigorous requirements will take the exam again and upgrade their facilities and win their permits later. Thirteen permits were issued to licensed falconers to take raptors from the wild for training.

At the end of the fiscal year, 17 raptors were held under falconer permits: 7 red-tailed hawks, 3 prairie falcons, 2 Harris' hawks, 2 peregrine falcons, 1 goshawk, 1 ferruginous hawk, and 1 shaheen. Some of these were birds obtained prior to March 12, 1971, the effective date of the law protecting hawks, owls, and vultures.

Four additional permits, testifying to legal possession of specific raptors, were issued to persons who obtained the following raptors prior to March 12, 1971: 3 red-tailed hawks, 1 rough-legged hawk, and 2 burrowing owls.

Thus far, the only protected game that might legally be taken in New Mexico by use of falcons has been quail during the 1971 quail season. As future seasons are set, consideration will be given to legalizing use of falcons against various types of game birds.

In May 1972, 32 additional families of migratory birds were placed under federal protection. Included were the hawks and falcons, which will necessitate coordination of federal and state falconry regulations and licensing.

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Necessary publicity about new laws and regulations involving falcons will likely increase interest in falconry. Information about declining species also stimulates proposals for captive propagation. Agencies that administer permits to take, use, and propagate raptors therefore need more and better information about the wild populations of the various species. Also, as laws, regulations, and policies are established, a new, strong law enforcement effort becomes necessary, particularly to prevent misuse of those species whose rarity has increased their value, whether for the income or the prestige of the possessor.

FIELD-TRIAL AND CALL-PEN PERMITS

Nine field-trial permits were issued during the fiscal year: Two for Weimaraners, two for retrievers, two for German short-haired pointers, one for Brittany spaniels, and two for various field dogs. Four new call-pen permits were issued and four old ones renewed. By aiding in the training of hunting dogs, these permits help to conserve game birds and add enjoyment to bird hunting.

SCIENTIFIC COLLECTING PERMITS

At the end of the fiscal year, the following numbers of collecting permits were in effect:

Permits to take and kill-----	108
Permits to take and band only -----	18
Permits for Department personnel -----	<u>44</u>
Total permits for collecting -----	170

Although specimen collecting is a very small drain on wildlife populations, other factors, which the Game Department cannot control, exert increasingly critical pressures on certain wildlife species. Therefore, the Game Department, as in recent years, followed quite stringent policies in issuing collecting permits. The following collections were reported for calendar year 1971.

SCIENTIFIC COLLECTING PERMITS - 1971 Collections						
PURPOSE OF COLLECTION	MAMMALS		FISH		BIRDS	
	Protected	Unprotected	Protected	Unprotected	Protected	Unprotected
Teaching and research	45	788	202	7,091	780	25
Disease research & control & pesticide monitoring	21	293	343	206	8	
Rotenoning, sampling, etc. (Some killed, some released untagged)			3,79	13,556		
Tagged or banded & released	56	3,596	235	1,369	7,936	33
Transplants for mosquito control				175,190		
Zoo collection	2				2	
Propagation					3	
Found dead, added to teaching collections					<u>44</u>	<u>2</u>
Total collections	<u>124</u>	<u>4,677</u>	<u>4,689</u>	<u>197,412</u>	<u>8,773</u>	<u>60</u>

A zoo collection of the previous fiscal year was a new "Smkey Bear," taken near Cloudcroft in spring of 1971 and flown to Washington in late 1971 as a replacement for the aging "Smokey" in the zoo there.

GAME MANAGEMENT

GAME BREEDERS LICENSES

On the 10 shooting preserves licensed for the September 1, 1971 - March 31, 1972, shooting preserve seasons, 6,218 birds were released: 2,471 pheasants, 74 blue quail, 1,556 bobwhite, 617 chukars, and 1,500 coturnix. The 1,322 birds harvested included 842 pheasants, 212 bobwhites, and 268 chukars.

At the end of the fiscal year, the following numbers of licenses and permits for game breeding were also in active status: 266 propagation permits, 15 park licenses, and 78 lake licenses.

OPERATIONS UNDER CLASS A PARK LICENSES AND PROPAGATION PERMITS 1971-1972				
SPECIES	DISPOSED OF		ADDED	ON HAND park licenses 12-31-71; propagation permits 3-31-72
	By sale or donation	By hunting on parks		
BIRDS				
Quail	9,115		5,860	4,605
Pheasants	4,526		3,343	2,866
Chukars	1,950		1,629	1,775
Peafowl			7	15
Timemou	4			
Turkeys	14		44	30
Peacocks	2		3	11
Band-tailed Pigeons			1	1
Ducks	98		118	115
Geese	2		3	4
Falcons			3	8
Goshawks				3
MAMMALS				
Raccoon				1
Bear				1
Elk		81	100	737
Elk, white				2
Deer, red				3
Deer, mule	3	32	50	224
Deer, white-tailed				22
Deer, fallow				77
Deer, sika				17
Sheep, Barbary		2		102
Sheep, Barbados				8
Sheep, mouflon				37
Bison				12
Pronghorn				5
Moose				2
Oryx		1	1	2
Tahr				12
Blackbuck				6
Javelina				1
Ibex				14

GAME MANAGEMENT

ANIMAL DEALERS

Commerce in wild animals has always offered certain profits to humans and certain risks to individual wild animals and, in some cases, entire species of wildlife. Reductions in wildlife habitat and in some species of wildlife have coincided, significantly, with increased interest in the keeping of wild animals in zoos and as pets. Wildlife agencies have, therefore, a growing responsibility in the regulation of the commerce in wild animals.

This year the Game Department developed new policies and licensing procedures for animal dealers operating in New Mexico. The applicable forms were ready only at the close of the fiscal year, so only two dealers were licensed by June 30, 1972. The regulatory procedures will eventually extend, however, to all dealers and pet shops in the state.

Under the present statutes, the Game Department controls importation of both protected and unprotected species of wildlife. Once a particular animal is legally imported, the Game Department's authority extends only to those species protected by the current statutes. If future legislation extends the Department's jurisdiction to species now unprotected by law, the responsibility will grow, but the opportunity to properly manage and conserve those species will be welcomed.

Game Management Federal Aid Program

A bird in the hand may well be worth two in the bush if the bird-hunter's license fee paid for protection and improvement of habitat for that bird's species.



The fees paid by sportsmen for their hunting licenses finance much of the Game Department's work to conserve and manage New Mexico's wildlife resources and to provide hunting opportunity. Additional funding for that work is available from certain federal programs.

Chief among these are funds collected as excise taxes on hunting equipment under authority of the Federal Aid in Fish and Wildlife Restoration Act. These monies are allotted to the states for work under approved Pittman-Robertson projects to be financed 75 percent with federal funds and 25 percent with state money. The following table indicates the magnitude of the federal contribution to the Department's work in the last six years.

FISCAL YEAR	FEDERAL P-R APPORTIONMENT	STATE FUNDS	TOTAL
1967	\$ 519,678.75	\$ 173,226.25	\$ 692,905.00
1968	592,735.68	197,578.56	790,314.24
1969	686,045.76	228,681.92	914,727.68
1970	721,809.17	240,603.05	962,412.22
1971	702,686.17	234,228.72	936,914.89
1972	<u>731,977.02</u>	<u>243,992.33</u>	<u>975,969.35</u>
Totals	\$3,954,932.55	\$1,318,310.83	\$5,273,243.38

Additional financing, available under Accelerated Research Programs, has benefitted research on band-tailed pigeons in the Four Corners area and on doves.

The 1970 national survey of fishing and hunting indicates that sums, such as those listed above, that are spent on management and conservation of wildlife and wildlife habitat produce significant returns to the economy of the nation. In 1970, the 14,336,000 hunters in the United States spent \$2,142,648,000 and the 33,158,000 fishermen spent \$4,958,883,000 in pursuit of their sport. Sportsmen's contributions to the economy are relatively larger in the Rocky Mountain states than in other areas of the nation because more people fish and hunt in this area. In 1970 17 percent of the people in the Rocky Mountain area hunted and 31 percent fished.

The work of conservation and management of wildlife and wildlife habitat also brings significant rewards to many people who may not fish or hunt. The survey indicates that in 1970 birds and other wildlife provided the following recreation to these three groups of people

GAME MANAGEMENT FEDERAL AID PROGRAM

12 years old and older:

	<u>Number</u>	<u>Recreation Days</u>
Birdwatchers	6,813,000	411,371,000
Wildlife photographers	4,519,000	37,828,000
Nature walks	26,906,000	337,092,000

In addition, many campers, picnickers, and boaters enjoy natural areas that were conserved and developed with sportsmen's money for the benefit of game and wildlife. The pursuit of recreation other than hunting and fishing also contributes significantly to the economy of the state and the nation. In addition, the conservation and management of land and water areas for wildlife contribute significantly to the protection of man's environment, one example of which is the development and protection of sources of clean water.

W-14-C-31 WILDLIFE MANAGEMENT COORDINATION

The year started with 14 active projects. The addition of two land projects increased the active projects to 16 at the end of the year. Routine work consisted of writing new segments and amending current segments, inspecting work in progress, planning new work and new acquisitions and editing and preparation of completion reports. All of the current year's Federal Aid funds were obligated, and a safety margin of \$363,839.78 was established on the 1971 funds.

W-32-L-8 LESSER PRAIRIE CHICKEN RESTORATION RANGES

Under this project the Department purchased 627.61 acres of lesser prairie chicken habitat in Lea and Roosevelt Counties from the Bureau of Land Management. This continues the Department's long-range program for the restoration of lesser prairie chicken range.

W-84-D-32, 33, and 34 GAME TRAPPING AND TRANSPLANTING

Segment 32: Seventy-two antelope were trapped on the TO Ranch east of Raton, and fifty-one of these were crated and flown to San Luis Potosi, Mexico and presented to the Mexican Government. In exchange the Department received permission to trap and move to New Mexico five desert bighorn sheep.

Segment 33: The Department was successful in capturing five desert bighorn sheep ewes in the vicinity of Loma Prieta, Mexico and in transporting these sheep to the Red Rock Wildlife Area for the purpose of establishing a captive breeding herd. In addition one desert bighorn sheep ram was taken on the San Andres Wildlife Refuge and moved to the sheep pasture at the Red Rock Wildlife Area.

Segment 34: Arrangements were made to conduct a javelina trapping program in Big Bend National Park, Texas but personnel were unable to locate sufficient animals to initiate the program.

W-93-R-14 GAME SURVEYS

The management and harvest data for big-game species is collected under this project. Project personnel and district wildlife officers assist in data collection and in disseminating management recommendations to the public. Other state and federal agencies assist in gathering information necessary for making joint management recommendations.

Five big-game research projects are also conducted under this project. One project studies deer crippling loss and illegal kill during the general deer season. Another, a long-range cooperative study examines the effects of modification of pinyon-juniper removal on deer and elk habitat, populations and yields.

A third study, both interesting and productive, deals primarily with a bloodworm that causes disease and blindness in our southwestern elk populations. Personnel from

GAME MANAGEMENT FEDERAL AID PROGRAM

Colorado State University, especially Dr. Charles P. Hibler, have contributed much to the study and have determined the life cycle of this worm and the vector involved. Current work is now to determine a control.

Two newer studies, also in the southwest area, seek causes for low deer fawn survival and estimates of mountain lion populations.

W-94-L-2 RIO GRANDE WATERFOWL ACQUISITION

The Department purchased 2.25 acres of land from the Middle Rio Grande Conservancy District to eliminate non-department holdings within the Belen Waterfowl Area.

W-99-D-13 and 14 WATERFOWL AREAS DEVELOPMENT

Development and operation of seven waterfowl areas has continued throughout the year.

McAllister Lake: Under a lease agreement, the Bureau of Sport Fisheries and Wildlife continues to operate this area as part of the Las Vegas National Wildlife Refuge.

Belen: The sharecropper on the Belen area made grains and green feeds available to waterfowl in return for the use of other fields for his cash crop. Goose and duck use of the area were similar to that of previous years.

Bernardo: Buildings, pipelines, ditches and fences were maintained and 550 acres of various crops were produced for waterfowl feed and as hay. The 100 acres of land leveled during the past fiscal year were put into production this year and produced additional field crops for use by wildlife. Records indicate that this refuge provided 365,000 days of waterfowl use, including that by cranes.

La Joya: Fences were maintained on La Joya area. Records total 220,000 days of waterfowl use.

Artesia: A total of 156 acres of various crops was produced at the Artesia Waterfowl Area for use by wildlife. New developments during the year included the drilling of an artesian water well and the installation of a pump unit to provide irrigation water for the various field crops. Other facilities on the farm, including ditches, resident houses, fences and storage buildings were maintained. Records total 361,000 days' use by waterfowl, including cranes.

Jackson Lake: Dams, pipelines, ditches, roads and fences were maintained. Approximately 3000 feet of concrete pipeline were installed in the Jackson Ditch; 11 acres of shrub plantings were maintained; and 215 acres of various crops were produced for waterfowl feeding, pasture and hay. During the year 273,000 waterfowl-days' use were recorded.

Miller Mesa: Crops were produced for waterfowl on a share-crop basis on the Miller Mesa farm. Approximately 75 acres of crop were left for waterfowl use. Department personnel renovated the Miller Ditch which carries water to this farm and maintained pipelines on Sambrito Creek. Records indicate that 451,000 duck-days' use occurred in the Miller Mesa Waterfowl area during the year.

W-101-D-15 STATEWIDE WILDLIFE DEVELOPMENT

This project is responsible for the construction and maintenance work on all wildlife areas statewide. The large residence at the Heart Bar Wildlife Area was completely modernized to make it suitable for occupancy by a member of the Department team assigned to the mountain lion project. A new D-6 Caterpillar tractor was purchased for use on development and maintenance programs requiring heavy equipment. At the Red Rock Wildlife Area corrals and pastures were constructed to hold the breeding herd of desert bighorns. This entailed construction of 3.2 miles of game-proof fence to enclose about 640 acres of pasture area.

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W-104-R-12 and 13 GAME BIRD STUDIES

This project potentially involves research on all species of game birds in New Mexico except wild turkey (which is legally classed as big game and is included in Project W-93-R), although active work is not in progress on all species at once.

Work on upland birds includes quail, pheasants, blue grouse, prairie chickens, and chukar partridges. Two studies investigate correlations among two methods of determining quail population trends and fall quail densities and probable hunter success. Data of 13 years indicate strong correlations between visual counts in August and hunter success. Data of 3 years indicate good correlation between counts of quail calls heard in May and the August visual counts. Quail trend routes are obviously valuable management tools. A manuscript covering Department investigations of prairie chicken population behaviour was completed, submitted to the *Journal of Wildlife Management*, and was accepted for publication in that journal. Another manuscript about the Department's 9-year scaled quail study in Lea County was also completed and submitted to *Wildlife Monographs* as a candidate for possible publication. Encouraging reports continued to be received about chukars in San Juan County, the only part of the state where chukars are known to breed in the wild and show promise of establishing permanent populations. A few sightings of blue grouse were reported from the Mt. Taylor area where blue grouse were transplanted from northern New Mexico in 1969. Whether grouse are established there is as yet unknown. Since 1968 no reports of grouse sightings have been obtained from the White Mountains where grouse were released about 10 years ago. Because a few grouse are hard to find in so large a mountain area, we should probably not yet write off the latter transplant as a failure. Lastly, work began on a bulletin on exotic upland game birds in New Mexico.

The annual random card survey of game bird harvests includes both upland and migratory birds. The results, published in a detailed project report and in *New Mexico Wildlife* show the prime importance of quail and doves to the bird hunters of the state, as well as the considerable importance of waterfowl in arid New Mexico.

This project's work on migratory game birds includes mallards, Canada geese, mourning doves and band-tailed pigeons.

Studies to determine mortality rates, distributions and other unique characteristics of mallard populations wintering within the high plains unit of New Mexico culminated in 1971 with the preparation of a joint report of New Mexico, Colorado, Montana, Wyoming, Nebraska, South Dakota and Texas. As a result of this report, the Western states in the Central Flyway states can establish a more liberal bag of mallard drakes than previously possible.

During the winter monthly aerial censuses of wintering mallards and geese were conducted. Studies of Canada geese emphasized trapping and banding in northeastern New Mexico and the Rio Grande Valley. All geese were aged, sexed and measured to determine flock affiliations. Band recoveries were analyzed to determine mortality rates and changes in distribution.

New nesting structures for Canada geese were placed in ponds and lakes at La Cueva. Since 1961, 269 goslings have been banded and reared there. The area appears to have reached its carrying capacity for nesting geese and gosling production.

Evaluation continues of the effects of special waterfowl regulations including the experimental point-system duck season. More information is needed to determine for each species the best point values for maximum harvest plus species protection.

Study of resident and migratory populations of band-tailed pigeons continued. Experimental hunts provide information on age and sex ratios and mortality rates. This work and banding efforts are coordinated with that in other states (see Four Corner's Band-tailed Pigeon Study). Information collected indicates that adult pigeons return to the same area to nest each year. While summering flocks in New Mexico appear to be fairly discrete, migration and nesting pigeons range far and wide looking for food. Since 1968, over 4,000 pigeons have been banded in New Mexico. The relatively small percentage of recoveries indicates a much larger pigeon population than originally thought.

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Each year New Mexico conducts, for the Bureau of Sport Fisheries and Wildlife, a series of mourning dove call-count routes to determine a breeding index and the density of nesting doves. This is used in the formulation of season length and bag limits for the coming year.

W-106-L-10 STATEWIDE HUNTING RIGHT-OF-WAY EASEMENT

A re-inventory of state lands by the State Land Office showed this project leaving 9,211,632 acres, as compared to 9,287,970 acres under the past segment. These state school lands, which lease at one-half cent per acre, are open to the hunters and fishermen during the various open hunting and fishing seasons. A surveillance program was conducted by Department personnel on the state school lands located in eastern New Mexico to assure that sportsmen were not denied access to state school lands reachable by public roads.

W-109-R-8 RANGE REVEGETATION INVESTIGATIONS

A final report summarized the findings of the browse revegetation research conducted during the past seven segments. The project was then discontinued.

W-111-R-7 and 8 EVALUATION OF EXOTIC MAMMAL RELEASE SITES

A master thesis (NHSU) prepared by Tim Barraclough, contains a review of literature on the Persian gazelle and the results of a two-year study to map and evaluate the vegetative cover of the Shikar and GPA pastures at the Red Rock Wildlife Area. The study of Iranian ibex in the Florida Mountains and the evaluation of the Ladron Mountains for a Siberian ibex release continued. Vegetative studies were initiated in the newly constructed desert bighorn sheep pasture.

W-114-D-4 BUFFALO ESTABLISHMENT

The project was terminated in January 1972. The Department was unable to obtain an agreement with the Department of Defense for a buffalo release on the McGregor Firing Range. This, plus unfavorable public reception of the present methods of hunting buffalo caused a re-evaluation of the buffalo program.

W-116-L-2 BERNARDO WATERFOWL AREA ACQUISITION

Attempts were made during the year to trade the Belen Waterfowl Area for a parcel of land lying north of this area, but mutually satisfactory terms could not be reached with the landowner involved.

W-117-D-5 NORTHERN GAME RANGE DEVELOPMENT

About 300 acres of range were reseeded and one acre of shrubs and trees planted on the Roque Wildlife Area. Six and one-half miles of fence were built on Urraca and Roque Wildlife Areas.

W-118-L-2 MARQUEZ ACQUISITION

This segment proposed to add 14,000 acres to the Marquez Wildlife area, but since the property is involved in litigation, the segment has remained inactive.

W-119-L CONTINENTAL DIVIDE ACQUISITION

This project was initiated for the purpose of obtaining the Cooper Ranch at Continental Divide east of Gallup, New Mexico. No progress has been made in negotiations, therefore, the segment has remained inactive.

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W-120-S-1 HUNTER SAFETY TRAINING

Progress under this project is reported under INFORMATION AND EDUCATION, *Hunter Training*.

FOUR-CORNERS BAND-TAILED PIGEON STUDY

This cooperative study with the states of Utah, Colorado and Arizona is funded by the federal government under the Accelerated Research Program. These additional funds allowed the department to hire two summer students for trapping and banding. Work under W-104-R and this study is coordinated and all data combined. When this study is completed, a joint report will be prepared by the four states.

CENTRAL MANAGEMENT UNIT DOVE STUDY

New Mexico is continuing to cooperate with other states in the Central Management Unit on a mourning dove banding study. This work is funded by Accelerated Research Program funds and will continue through 1975. Two summer students were hired to trap and band mourning doves throughout the state. Band recoveries will provide information on dove populations, mortality rates and production.

New Mexico has been able to band and release in excess of 3,000 doves per year since the banding originated 3 years ago. This information will produce more efficient management of the dove resource.

PECOS VALLEY MOURNING DOVE STUDY

The effects on mourning dove populations of phreatophyte clearing in the lower Pecos Valley were studied by use of nesting transects, study plots, and coo-count transects. The study was funded by the U. S. Bureau of Reclamation as part of a six-year investigation, of which this was the fourth year.

Preliminary findings strongly suggest that extensive stands of cottonwoods and mature salt-cedars are extremely important as nesting habitat to mourning doves in the lower Pecos Valley. Far fewer doves nest and produce young in areas cleared or naturally devoid of woody phreatophytic vegetation than in uncleared areas.



Fish Management

Fisheries management and water quality protection are closely linked to man's health, recreation, and esthetic enjoyment.



TROUT PROPAGATION

Trout fishing success by anglers in New Mexico is largely dependent on the fish produced at the trout hatcheries located at Glenwood, Lisboa Springs, Parkview, Red River, and Seven Springs and the rearing station at Rock Lake. The six production units stocked 3,098,442 trout (396,748.50 pounds) in trout waters of the state open to public fishing. The trout measured from three-quarters of an inch in length to approximately fifteen inches and averaged 6.75 to 7.00 inches.

Stocked trout over six inches in length numbered 710,647 and weighed 382,046 pounds, a decrease in number of 140,509 and an increase in weight of 50,914 pounds from the 59th fiscal year. The average length of the catchable-size fish stocked was 11.00 to 11.25 inches. The number of fry and fingerling stocked totaled 2,387,795 and weighed 14,702.50 pounds. These figures represent a decrease of 840,737 fish and 10,204.50 pounds.

The Bureau of Sport Fisheries stocked 1,231,960 rainbow trout fingerlings weighing 35,210 pounds in Navajo, Heron, and Abiquiu reservoirs. This brings the total number of trout stocked in public waters to 4,330,402 (431,958.50 pounds).

The June 30, 1972 trout inventory at the six stations totaled 3,118,397 (196,848.50 pounds) including 494,672 (158,769.00 pounds) over six inches long. This represents an increase of 844,787 trout and a decrease of 40,988.50 pounds. The decrease in pounds is reflected in the additional 37,529.50 pounds stocked this year.

Even though drought conditions still prevailed, the new management unit system for stocking trout made unnecessary the holding over of a large number of catchables. Because many catchables had been held over the previous year, more large-size fish were stocked this year.

After inventory adjustments, production during the 1971-72 fiscal year was 3,945,240 (356,635.00 pounds). This represents an increase of 2,007,424 trout and a decrease of 52,162.00 pounds. A major cause of pound reduction was holding fish on a maintenance diet at the Red River Production Unit while the master water supply line was repaired. Another contributing factor was the loss of the water supply caused by drought conditions at the Glenwood Production Unit.

Expenditures to accomplish this production were \$362,712.52, bringing the cost of production and distribution to \$91.93 per thousand trout produced and \$1.016 per pound, as compared with 0.946 per pound in the previous fiscal year. Cost comparisons with the previous fiscal year reveal that fish feed increased .026 cents per pound of trout produced, egg cost increased .009 of a cent, operating costs decreased .005 of a cent

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and distribution increased .040 cents. The increased expenses for feed, eggs, and distribution can be attributed to rising costs. The decrease in the operating cost can be attributed to the better utilization of the hatchery facilities.

During the past year the Fisheries Division purchased four small tractors. Ingenious hatchery personnel have built and installed automatic fish feeders, fish loaders and fish tanks on the tractors, thus cutting down the time it previously required to do the jobs and allowing personnel to perform other tasks that previously had to be stinted.

Settling basins for water pollution control were constructed at the Red River, Parkview and Lisboa Springs hatcheries during this fiscal year. Federal funds were obtained through the State Planning Office from the Bureau of Outdoor Recreation and Four Corners Regional Commission to install a new master water supply line at the Red River Production Unit and a new drain line at the Lisboa Springs Production Unit and to construct a new water collection system at the Seven Springs Production Unit to operate the experimental silo-and-filters fish-rearing unit.

In conjunction with this new construction, a twenty-unit campground complete with shelters, tables, grills, water supply and sanitary facilities and a self-guided tour outlining the hatchery process were constructed at the Red River Hatchery. A self-guided tour was constructed at the Lisboa Springs Hatchery. An eight-unit campground was constructed at the Seven Springs Hatchery, complete with tables, grills, water supply and sanitary facilities. The funds used to match the federal funds were obtained from the Game and Fish Bond Fund.

The experimental fish-rearing silos and filters were financed 75 percent by Bureau of Commercial Fisheries Funds and 25 percent by state funds. This type of fish-rearing unit is still being evaluated.

WARM-WATER PROPAGATION

During the past fiscal year the Bureau of Sport Fisheries and Wildlife, by request of this Department, provided 6,034,933 warm-water fish (channel catfish, walleye, northern pike, largemouth bass and bluegill). The Department of Game and Fish distribution units provided transportation for 2,473,328 (13,570 pounds) of these fish.

Fisheries Federal Aid Program

These are the fish that please the anglers who buy the licenses that provide the funds to help build lakes to produce more fish to please the anglers who...



Federal Aid programs provide additional funding to enhance angling opportunity in the Land of Enchantment. Funds each year are made available directly to the Department of Game and Fish from the Federal Aid in Fish and Wildlife Restoration Act, Department of Commerce, and Section 8 of the Colorado River Storage Project. Additional funds from the Four Corners Regional Commission and Bureau of Outdoor Recreation are available to the Department through the State Planning Office for bonafide development or acquisition projects submitted through the State Planning Office for approval.

Benefits of the Fisheries Federal Aid Program are normally associated with producing additional angler opportunities. These benefits accrue through consumptive use of the resource by anglers. Perhaps equally important is the nonconsumptive use that benefits persons who may not possess fishing licenses, but who enjoy the many recreational values associated with water development where Federal Aid monies have been used. Several thousand hours of boating, birdwatching, picnicking, hiking, and just plain loafing occur at many of the state-owned lakes.

Fisheries Federal Aid Programs enhance recreational opportunities for both consumptive and nonconsumptive users of the fisheries resource in New Mexico. In turn, both categories of users contribute to the state's economy. In 1963, anglers contributed nearly 31.8 million dollars to the state's economy; the 1972 projection is 40 million dollars. The nonconsumptive benefactors of the Fisheries Federal Aid Program also contribute millions.

FEDERAL AID IN FISH AND WILDLIFE RESTORATION ACT PROJECTS (DINGELL-JOHNSON PROJECTS)

The Dingell-Johnson Act authorizes the appropriation of funds collected from an excise tax charged to the manufacturer of fishing equipment on items such as reels, creels, poles, and artificial lures and flies. These funds are apportioned to the respective states in accordance with a formula prescribed by law and matched with state money at a ratio not to exceed 75 percent D-J money. The funds during the 1971-72 fiscal year provided \$234,283 for New Mexico. The projects funded with these monies include state-wide fisheries investigations, fish management coordination and supervision, maintenance and minor development of fish restoration projects, acquisition of lake and stream fishing easements, planning, development and renovation of lakes, and introduction of game fish.

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FEDERAL AID IN FISH AND WILDLIFE RESTORATION (DINGELL-JOHNSON) FUNDS MADE AVAILABLE TO THE NEW MEXICO DEPARTMENT OF GAME AND FISH, 1967 THROUGH 1972 (75 PERCENT FEDERAL AND 25 PERCENT STATE).			
Fiscal Year	Federal D-J Apportionment	State Funds	Total
1967	\$ 126,734.00	\$ 42,244.00	\$ 168,978.00
1968	163,838.00	54,612.00	218,450.00
1969	156,271.00	52,095.00	208,366.00
1970	200,146.00	66,715.00	266,861.00
1971	233,190.00	77,730.00	310,920.00
1972	234,283.00	78,094.00	312,377.00
Totals	\$1,114,462.00	\$371,495.00	\$1,485,947.00

F-22-R-13 and 14 STATEWIDE FISHERIES INVESTIGATIONS

The project includes research, survey, inventory, and fisheries management investigations. Objectives of the investigations include: (1) basic surveys of state fisheries, (2) statewide water pollution investigation, (3) fishing pressure counts on trout waters (4) de-stratification of lakes, (5) effects of reducing trout bag limits on fisherman use, (6) trophy water regulation, (7) creel return of Dolly Varden versus rainbow trout, (8) effects of planting brown trout fry on harvestable stock, (9) investigations of unpredictable fishery phenomena, (10) brown trout:Rio Grande cutthroat relationships, (11) reservoir management planning, (12) conservation officers' creel census on lakes and streams, (13) fish management planning, and (14) two-pole angling on warm-water reservoirs.

Six biologist conduct procedures necessary to meet these objectives: one at Roswell works the southern half of New Mexico, another at Albuquerque works the northwest section, a third at Raton works the northeast, and three others are stationed at Santa Fe: the Project Leader, a Project Assistant, and the Federal Aid Coordinator.

During the past fiscal year the statewide basic survey of fishing waters was 80 percent completed and the pressure count studies and Dolly Varden study were completed.

Now projects initiated during Segment 14 include: (1) rainbow fingerling growth and survival as related to size and time of plant, (2) status of rare native fish in New Mexico, and (3) pilot postal survey to determine fisherman use and catch.

Development Projects

Federal-Aid-funded development projects include construction of new impoundments, maintenance of existing project developments, and application of proven fisheries management tools.

F-22-D-13 STATEWIDE MAINTENANCE AND MINOR DEVELOPMENT

This projects permits the Fisheries Division to maintain projects purchased or leased with Dingell-Johnson funds. During the past fiscal year, the access road at Charette Lake was modified and improved, informational signs were installed at several fishing waters, and established signs at Federal Aid waters were maintained. A weather station at Snow Lake and a stream-flow gauge at Trout Creek were also maintained.

F-23-D-1 LARGE CREEK DAM (QUEMADO LAKE)

Quemado Lake became a reality during the past fiscal year. The lake began impounding

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water during the spring of 1971 and filled to approximately 65 acres by April, 1972. The maximum size will be 131 surface acres. The lake, dedicated by Governor Bruce King on April 1, 1972, will most definitely be a boost to the economy of Catron County and the western portion of New Mexico. Along with Dingell-Johnson monies, Four Corners Regional Commission monies were used in building this attractive recreational lake.

F-44-D-2 MAINTENANCE PLANTING OF WALLEYE FRY

This project enables the Fisheries Division to collect walleye eggs and hatch the eggs at state hatcheries. During the past fiscal year, nearly 26 million walleye eggs were collected for hatching. Ten million eggs were hatched at the Rock Lake Trout Rearing Station at Santa Rosa. The remaining walleye eggs were given to the Bureau of Sport Fisheries and Wildlife to be hatched at federal hatcheries in southwestern U. S. Once hatched, the walleye fry are planted in reservoirs that have great water level fluctuation during the normal walleye spawning period. Planting walleye fry in reservoirs where drought or releases of irrigation cause severe fluctuations seems to be the management tool necessary to provide walleye angling in the reservoirs. During the last fiscal year, walleye fry were planted in Elephant Butte, Caballo, and Alamogordo reservoirs.

F-45-D-2 INTRODUCTION OF NORTHERN PIKE

This project was designed to facilitate the taking of northern pike eggs and securing northern pike fry from federal hatcheries. Introduction of northern pike includes stocking in Conchas, Ute, Elephant Butte, Caballo and Alamogordo reservoirs. This year, spawn could not be collected at Miami Lake because the lake's overpopulated condition is unfavorable to production of large, productive brood fish. However, nearly 600,000 northern pike fry were obtained from Cedar Bluff National Fish Hatchery in Kansas and planted in Conchas Lake and Caballo Lake. Nearly 300,000 northern pike fry were planted in the abandoned Elephant Butte hatchery ponds, and this plant yielded nearly 16,000 three- to seven-inch northern pike fingerlings that were planted in Elephant Butte Reservoir. Northerns have been established in Elephant Butte Lake since the spring of 1970 and, to date, the largest one caught there weighed 10 pounds 4 ounces. The northern is expected to grow to perhaps 30 or 35 pounds in Elephant Butte Lake in a period of approximately seven years.

F-46-D-1 MURPHY LAKE REHABILITATION

On Labor Day 1971, Murphy Lake was rehabilitated to remove Rio Grande chubs, a nuisance species that were pestering anglers and interfering with natural production of trout. Anglers collected the edible gamu fish removed from the lake. Subsequent netting indicated no fish life present in the lake, indicating successful rehabilitation. The lake was restocked in the spring of 1972 and good fishing was reported on opening day, May 6. It should be 10 years before competition exerted by undesirable fish again necessitates renovation.

Coordination

F-24-C-13 FISH MANAGEMENT COORDINATION

Fish Management Coordination encompasses planning, operation, and administration of all Dingell-Johnson projects. Documents are prepared to obtain Federal Aid reimbursement for all approved research, management, development, and land acquisition. The coordination project also includes supervision of and assistance for project personnel. The coordinator works very closely with the field biologists to insure that objectives set forth in F-22-R projects are met.

Lease Projects

Federal Aid funds are used to lease fishing areas for a short time or for perpetual use. The Department of Game and Fish currently has three active lease projects.

FISHERIES FEDERAL AID PROGRAM

F-33-L-5 PECOS MONASTERY RIVER AND LAKE LEASE

The past fiscal year marked the seventh year of a 10-year lease with the Benedictine Fathers at Pecos Monastery, which provides access to 1.75 miles of the Pecos River, a 6.2-surface-acre lake, and approximately 32 acres for fishing access and camping. The annual lease is \$4,500. This lake continues to provide many hours of enjoyable angling recreation along with picnicking, camping, hiking, and birdwatching.

F-40-L-3 GREEN MEADOW LAKE

Green Meadow Lake is in the fourth year of a 10-year agreement between the New Mexico State Game and Fish Commission and the owner of the lake. The lease includes a 14-acre lake and 6 acres of land located approximately one mile north of Hobbs on State Road 18. The annual cost of the lease is \$4,200. Green Meadow Lake continues to provide warm-water fishing opportunity during the summer months and trout angling during the winter months. The lake is annually enjoyed by picnickers who use the facilities established on the lake shoreline.

F-42-L-1 BILL EVANS LAKE LEASE

This three-year lake lease agreement terminates August 1, 1972. Upon entering into the original agreement with Phelps Dodge Corporation, owners of the lake, the State Game Commission was able to acquire an option to purchase a perpetual fishing easement after three years if the lake proved feasible for fishing recreation. Bill Evans Lake is a 63-surface-acre lake near Tyrone that has provided excellent trout fishing and better than average fishing success for channel catfish, bluegill, and largemouth bass. The Game Commission decided to exercise the perpetual easement option.

F-42-L-2 PURCHASE OF PERPETUAL EASEMENT OF BILL EVANS LAKE

Bill Evans Lake, leased under Project F-42-L-1, has proven to be a very successful fishing recreation lake in Grant County. The State Game Commission notified Phelps Dodge Corporation in early 1972 that it wished to exercise the option to buy the perpetual use of the lake and surrounding area. The Game Commission applied to the State Planning Office for Four Corners Regional Commission funds to be used to aid in financing final acquisition of this lake. The Game Commission authorized payment of \$112,000 to Phelps Dodge Corporation, and the Department of Game and Fish received perpetual fishermen use of this valuable recreation area.

DEPARTMENT OF COMMERCE

The Department of Commerce makes funds available, through the National Marine Fisheries Service, to state game and fish departments, the funds that may be used to conduct research investigations on fish of commercial value or development of commercial fisheries potentials.

6-11-R-4 INVESTIGATIONS ON COMMERCIAL FISHERY POTENTIAL OF ROUGH FISH SPECIES IN ELEPHANT BUTTE RESERVOIR

The objectives of this project are to determine population structure, growth characteristics, seasonal movement, concentrations, and basic harvest methods of buffalo, river carpsucker, carp, and gizzard shad at Elephant Butte Reservoir. This three-year project, beginning April 1, 1968, was extended to terminate June 30, 1972. The investigations are subcontracted to New Mexico State University's Department of Animal, Range and Wildlife Sciences. Three graduate students conducted research at Elephant Butte Reservoir this fiscal year.

Findings to date suggest that a commercial fishery of only minor importance exists in Elephant Butte Reservoir. Buffalo are the only economically marketable species of rough fish there. Carp and river carpsucker could be of minor economic value if local markets were developed. Most of the buffalo fish caught from Elephant Butte Reservoir were

FISHERIES FEDERAL AID PROGRAM

shipped to Arizona or California. Gizzard shad could be of value for the pet food industry, but better harvest techniques will have to be devised before they could become of economic importance.

The final report for this project will be submitted sometime in 1972 outlining commercial fish harvest recommendations for Elephant Butte Lake.

6-20-R-1 EXPERIMENTATION WITH VERTICAL SILOS AS A MEANS OF REARING TROUT

This fiscal year marked the first year of a two-year study to compare cost-benefit relationships of rearing trout in a vertical silo with those of normal pond culture. This year we installed two 4,000-gallon silos capable of rearing approximately 6,000 pounds of rainbow trout, plus a water treatment system that would cleanse the water for release.

Preliminary research indicated many benefits could be derived by rearing trout in silos. Experimentation with the vertical silo may also identify a means of rearing trout where only small water volumes are available, such as in the northern part of the state. Private individuals owning water sources or water rights could install an inexpensive silo and rear trout for sale or consumption.

SECTION 8 - COLORADO STORAGE PROJECT

The U. S. Bureau of Reclamation makes funds available to the Bureau of Sport Fisheries and Wildlife to facilitate State Game and Fish research on reservoirs receiving water from the Colorado River Storage Project. Heron Lake, located east of the Continental Divide, qualified for Section 8 funding and last year water was diverted from the Blanco and Navajo Rivers through the Continental Divide into the Chama Drainage and impounded in Heron Lake. The lake inundated approximately 1,300 surface-acres during the fiscal year. Initial plants of rainbow trout, coho, and Molly Varden proved successful, and fishing was considered very good throughout most of the year. Research activities at Heron Lake are designed to identify initial utilization, physical and chemical parameters associated with the lake, and food production capabilities of the lake.

Two more years of research will be conducted at Heron Lake using Section 8 funding.



Wildlife Law Enforcement

Laws alone cannot protect wildlife and wildlife habitat. The laws must be enforced by trained officers.



The past year has been one of great strides and accomplishments by the Wildlife Law Enforcement Division. Nando Mauldin, Assistant Chief, was appointed to the FBI Academy, becoming the first wildlife officer to attend the FBI National Academy at Quantico, Virginia. The division initiated a training program to complement the three-week state police school required of all law enforcement personnel. The division will assume responsibility for providing the additional training to all new employees and, through in-service schools, to older employees as well. Fred Turner, who joined the division as law enforcement research specialist, formulated a law enforcement project now awaiting approval for Federal Aid funding. Under a revised prosecution report system, all citations are now recorded on key-punched cards, facilitating analysis of violation statistics. Our new warning citation system accommodates reporting of minor or borderline violations. Sixty-five warning citations were issued the first year.

Violations of almost every category are increasing each year. Since the number of field officers remains static at 32, emphasized enforcement is possible only in those problem areas considered most important. During the past year, such emphasis was directed against spotlighting and persons fishing without licenses. Seventy-two citations were issued for spotlighting, which was a drop of six cases from the previous year. Fishing without a valid license comprised 216 of the 414 cases written for fishing violations, a 32 percent increase over the previous year. All in all, total convictions increased 17 percent and total apprehensions 23 percent.

Field officers also continue to report violations for which there is insufficient evidence to prosecute. The 312 violations of this sort reported last year included the illegal taking of 190 deer, 48 elk, and 14 antelope.

Recorded field checks of hunters and fishermen dropped significantly, from 48,161 to 33,134, but this could reflect faulty recording. Arrests per category followed essentially the same trends as the previous year, with district officers issuing 80 to 85 percent of the citations and other department personnel issuing the remaining 15 to 20 percent.

Again a major effort was made to assure that civil damages were assessed in as many cases as were possible. This resulted in a 100 percent increase in monies received for civil damages, \$1525 to \$3099.

Personnel of the Wildlife Law Enforcement Division assisted as instructors at an Indian Game Ranger School held in Window Rock, Arizona.

PROSECUTIONS FOR VIOLATION OF NEW MEXICO GAME AND FISH LAWS - 1971-72 Fiscal Year			
VIOLATION	RESIDENT	NONRESIDENT	TOTAL
HUNTING VIOLATIONS			
Illegal possession of big game			145
Hunting with aid of artificial light			72
Failure to tag game			45
Hunting without a valid license			16
Illegal possession of small game			15
Failure to check in/out during special hunt			14
Attempting to exceed bag limit of game			14
Illegal hunting hours			13
Hunting in closed season			12
Exceeding bag limit			10
Hunting in closed area			10
Driving off of established roads			7
Hunting with detached tag			6
Illegal methods of taking game			5
Shooting at game from public road			5
Hunting without proper permit			5
Possession of firearm on state game refuge			4
Shooting at game from vehicle			4
Hunting/killing cougar illegally			2
Totals - Hunting Violations	263	41	304
FISHING VIOLATIONS			
Fishing without a valid license			216
Fishing in closed waters			70
Fishing with more than one pole			40
Exceeding bag limit of fish			35
Illegal methods of taking fish			34
Leaving fishing rod unattended			7
Fishing in closed season			4
Fishing with untagged trotline			4
Illegal possession of fish			4
Totals - Fishing Violations	307	107	414
MISCELLANEOUS VIOLATIONS			
Party to an offense			35
Leaving campfire burning unattended			26
Fraud in securing license			20
Applying for special license when ineligible			18
Litterbugging			17
Negligent use of a weapon			16
Camping in prohibited area			15
Using license issued to another			12
Violation of Snowmobile Act			9
Lending license to another			8
Unnecessary rallying of big game or game bird			5
Assaulting an officer			5
Destroying public/private property			4
Illegal use of game tag			2
Witnessing false statement			2
Escaping custody			2
Failure to yield to emergency vehicle			2
Illegal transportation of game			1
Selling animals without permit			1
Reckless driving			1
Illegal importation of game			1
Boat or motorboat on closed lake			1
Impersonating an officer			1
Totals - Miscellaneous Violations	184	20	204
GRAND TOTALS	854	168	1022
Total Prosecutions -----	1022		
Cases dismissed -----	-56		
Cases withdrawn -----	-10		
Cases pending -----	-22		
Warning citations -----	-65		
Juvenile cases -----	-37		
Cases for which fines were collected or bond forfeited -----	832		
Fines imposed	\$29,517.00		
Fines suspended	\$ 1,404.00		
Fines collected	\$28,113.00		
Bonds forfeited (51 cases)	\$ 1,780.00		
Average fine	\$ 37.80		

WILDLIFE LAW ENFORCEMENT

CONTACTS RECORDED ON FIELD CHECK FORMS - 1971-72 Fiscal Year				
RECORDER	FISHERMAN CONTACTS	WINTER CONTACTS	TOTAL CONTACTS	TOTAL ARRESTS
District Officers	15,434	9,127	24,561	869
Other Department Personnel	743	456	1,199	153
Check Stations		7,324	7,324	
Reserve Officers	50		50	
Totals	16,227	16,907	33,134	1,022

CIVIL DAMAGES ASSESSED - 1971-72 Fiscal Year	
15 deer at \$50 each	\$ 750.00
2 deer at \$100 each	200.00
1 deer at \$125 each	125.00
5 elk at \$200 each	1000.00
4 antelope at \$100 each	400.00
1 cougar at \$300 each	300.00
1 bear at \$100 each	100.00
1 bighorn sheep at \$200 each	200.00
24 trout at \$1 each	24.00
Total	\$3099.00

CONVICTIONS FOR GAME LAW VIOLATIONS 1925-26 through 1971-72			
FISCAL YEAR	TOTAL CONVICTIONS	FISCAL YEAR	TOTAL CONVICTIONS
1925-26	90	1951-52	563
1929-30	245	1952-53	510
1931-32	148	1953-54	490
1932-33	122	1954-55	467
1934-35	167	1955-56	492
1935-36	127	1956-57	928
1936-37	164	1957-58	825
1937-38	185	1958-59	924
1938-39	174	1959-60	895
1939-40	129	1960-61	991
1940-41	177	1961-62	1,172
1941-42	242	1962-63	1,063
1942-43	258	1963-64	808
1943-44	224	1964-65	1,010
1944-45	180	1965-66	888
1945-46	334	1966-67	824
1946-47	503	1967-68	678
1947-48	583	1968-69	815
1948-49	636	1969-70	625
1949-50	570	1970-71	691
1950-51	497	1971-72	832
Ten-Year Totals - 1962-72			
Convictions		8,234	
Fines		\$297,990.66	
Average Fines		per Conviction	
		\$39.88	

Information and Education



The quality of information provided to the public seriously affects popular environmental decisions on matters too technical and areas too distant for many individuals to experience personally.

The Department of Game and Fish continues to make every effort to maintain a good reputation with the various publics which are interested in and affected by its operations. This is the job of not one or two, but of many actions by everyone in the organization from top to bottom.

Informing the public about the programs, policies and activities is a Department-wide effort. This is encouraged and guided by the Information and Education Division whose main efforts are directed toward the mass media, namely newspapers, magazines, radio and television.

The following figures on I & E efforts were compiled from detailed monthly reports compiled by field personnel. "Days Spent," therefore, does not include the many hours spent by office personnel in the I & E work involved in answering questions that arrive by phone, letter or personal interview. Programs presented include a wide range of topics. Three examples of the more unusual type of meetings are: a casting clinic presented by the Special Services Division Chief at the University of New Mexico's Leisure and Recreation Center; conferences requested by other New Mexico universities that seek supportive use of Department speakers and materials in new environmental courses being planned; and a panel appearance at which employment opportunities for women in wildlife management were discussed.

DEPARTMENT-WIDE I & E ACTIVITIES - Fiscal Year				
PERSONNEL CONTRIBUTING	DAYS SPENT	MEETINGS		RADIO & TV PROGRAMS
		With Program	Without Program	
I & E Division	844	159	63	2,159
Other Divisions	<u>1,249</u>	<u>191</u>	<u>512</u>	<u>190</u>
Totals for Department	2,093	350	575	2,349

All Department divisions are feeling the rising workload in handling requests for information. The Santa Fe I & E office load increased 53 percent over the previous year, with

INFORMATION AND EDUCATION

over 7,800 requests handled. In addition nearly 8,000 hunting proclamations were mailed to nonresidents who held hunting licenses the previous year.

The Division Chief was injured in a helicopter crash while filming an antelope trapping operation and was off duty for nearly four months. This caused some delay in programs planned for the year.

A major public relations effort involved a press conference to answer charges leveled at the Department's management of the exotic animal program. Positive rebuttals and detailed explanation of the program brought favorable reviews to the Department.

NEWSPAPERS

The weekly news release remains a successful program in getting information to the general public. Each week 400 to 500 copies are mailed to news media throughout the state, and district officers also supply many additional local stories. For several consecutive years the statewide release has resulted in more than 10,000 column-inches of copy in the state's newspapers. This year 14,702 column-inches were published.

Addition of another field information officer permitted increased personal contact with editors, particularly in the southern portions of the state. Active membership is maintained in the New Mexico Press Association, New Mexico Outdoor Writers Association, local press clubs, State Farm Bureau and New Mexico Cattlegrowers Association.

The *Fishing Report* produced a week between Memorial Day and Labor Day was well used by the news media and sportsmen.

PUBLICATIONS

New Mexico *Wildlife* continues to be the Department's major publication. At the end of the fiscal year, circulation totaled 12,100 copies. The new circulation records system allows better analysis of its ups and downs. The revamped renewal system includes first and second notices and postage-paid renewal envelopes. This change nearly doubled the renewals and should result in a steady increase in circulation.

The Department of Development has published a new issue of the brochure, *Camping, Hunting, Fishing in New Mexico*, and the Game Department's section on camping facilities was accordingly updated.

Plans to reprint the popular *Fishing Waters Map* were delayed. A general informational pamphlet, *Fishing & Hunting in New Mexico*, was updated and reprinted.

Internal publications continue to be effective tools in providing communication links within the Department. *Inside Track* informs personnel about immediate problems or actions from the main office. *Bear Facts* comes out bi-monthly and serves as an internal communications medium to and from the field personnel.

PROMOTION

Out-of-state promotional efforts were re-evaluated and reduced from previous years. No out-of-state sport shows were attended, but Department fieldmen made several trips into adjacent states to give out information on hunting and fishing opportunities. They attended meetings and contacted sportsmen's clubs, vendors and industrial prospects. This activity has proven to be less costly and time-consuming than attending the large sports shows, and just as effective.

A number of outdoor writers were assisted with stories on hunting and fishing in the state. This is a continuing activity and has produced good results through magazines and newspaper stories all over the country. In this regard the Outdoor Writers of America Association annual conference in Mazatlan, Mexico was attended.

INFORMATION AND EDUCATION

Four milk companies are using on their cartons informational panels supplied by the Department of Game and Fish. Over 2½ million panels have been produced.

TELEVISION

New Mexico Outdoors, a half-hour show about fishing, hunting and other outdoor recreational activities, was produced in two 13-week series. One ran from September through November, the other from March through May. The show was aired over KOB Albuquerque, KBCD Lubbock, Texas, and K5WS Roswell.

In addition, many special features were prepared, air ready, for all three Albuquerque commercial stations plus the educational channel. We also supplied these channels with film for special needs as requested.

Over the year many employees made special program appearances. A stock of movie film is being built up on Department activities and New Mexico's fish and wildlife as a result of the television program's constant need for film footage. Division personnel spent considerable time in this filming.

RADIO

Outdoor Digest continues to be the Department's major effort to utilize radio to best advantage. The program was phoned every week to 43 stations in New Mexico and west Texas for 50 continuous weeks. The 3½-minute program gives broad radio coverage to Department activities and programs.

A number of district officers have regular radio programs. These and *Outdoor Digest*, plus appearances and specially prepared spot announcements have resulted in superior radio coverage for the Department.

ENVIRONMENTAL EDUCATION

During the year the Department participated in two meetings of the Western Regional Environmental Education Council, the work of which is funded by the U.S. Office of Education. The council has financed a few small educational projects in western states (none yet in New Mexico) and broadened pathways of communication between educators and agencies concerned with conservation of natural resources. Several proposed projects may prove of value to the Game Department in promoting better understanding of wildlife management and its contribution to a quality environment for man. One would provide resource agencies with greater opportunity to review and make recommendations on textbooks being considered for adoption. Another would investigate ways to make resource-agency publications and teaching materials more useful to and used in our schools. The resource agencies represented in the Western Regional Council also plan to consider joint educational projects to offset the ill-informed but growing anti-harvest sentiment that hampers their efforts to conserve and manage renewable resources.

In March and April, the Game Department called together representatives of various state agencies and universities to discuss environmental education in New Mexico and to consider cooperative work to strengthen this type of education in our state. Although no formal organization or specific project resulted, the meetings have provided a new channel for exchange of information and ideas, and some of the educators have asked that these informal conferences continue.

As in the past, the Department continued to provide, on request, speakers and teaching materials to schools, camps, and meetings of youth groups and adult audiences. Finances and personnel, however, are too limited to permit the full-scale educational program the Department would like to undertake. Because of this situation, the Department has especially welcomed invitations to participate in teacher-training workshops. Reaching one teacher opens a channel through which facts and understanding can flow to many students.

INFORMATION AND EDUCATION

HUNTER TRAINING

A major accomplishment this year was the development and production of filmstrips and other training aids for use by instructors in student classes. A student manual was designed and produced in coordination with other western states' hunter safety programs so that it could be used by all. This new manual was then printed and supplied to the western states at no charge by *Fishing and Hunting News*, a sportsmen's paper, and Remington Arms Company. This saved New Mexico \$3,000.

Training motion pictures, filmstrips and projectors, flip charts and instructor workshops were provided for certified instructors. Activities of hunter training personnel were:

Instructor workshops.....	11
Instructor schools.....	28
Contact meetings related to hunter training...	56
Newsletters published.....	4
Student classes attended by project personnel.	29
In-service schools.....	4
Out-of-state workshops.....	2

Progress of the program is:

	1971-72	1970-71
Instructors trained since beginning of program	<u>1,348</u>	<u>1,229</u>
Instructors trained this year	<u>300</u>	<u>119</u>
Total instructors trained....	1,648	1,348
Instructors discontinued	<u>521</u>	<u>207</u>
Total active instructors.....	1,127	1,147
Students certified to 7/1/71	8,597	6,448
Certified this year	<u>3,252</u>	<u>2,145</u>
Total students certified.....	11,849	8,597

There has been a steady reduction of hunting accidents since 1965, the year in which the most accidents were recorded. New Mexico has an accurate record of all hunting accidents dating back to 1967.

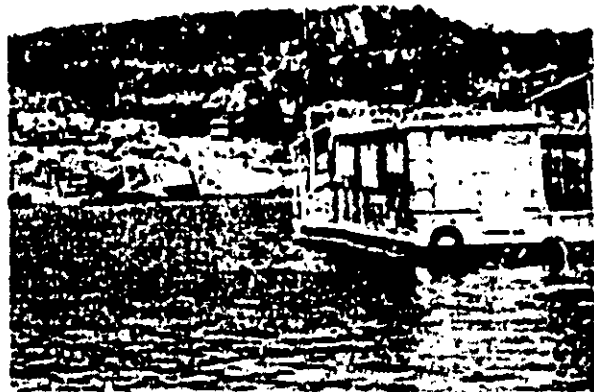
NEW MEXICO HUNTING ACCIDENTS			
YEAR	FATAL	NON-FATAL	TOTAL
7/1/71 to 6/30/72	2	13	15
1/1/71 to 6/30/71	1	2	3
1970	5	20	25
1969	3	19	22
1968	6	30	36
1967	4	31	35

Starting July 1, 1971, we converted all records to a fiscal year basis, rather than the calendar year used in the past.

This year eight accidents occurred while hunting non-game species, seven (including the two fatalities) involved big game hunting and two involved upland game. Nine of the 15 accidents were self-inflicted.

Special Services

As recreational pressures increase, facilities must be carefully planned and managed for maximum enjoyment by the public with minimum damage to wildlife environments.



Many duties were handled by the Services Division. Among the more important of these were the purchase and sale of vehicles, wildlife recreation area maintenance, hunting and fishing license sales, radio communications liaison, warehouse operations and supervision of the stockroom, printing and mailing.

One major function of the Division, the Force account, was transferred to Game Management. Because Pittman-Robertson funds were used for the purchase of a new D-6 tractor, the equipment and personnel supervision had to come under the Federal Aid Program.

HUNTING & FISHING AREAS

Limitations in funds and personnel hampered maintenance of the wildlife recreation areas. A budget increase was approved to purchase new self-contained toilets and the necessary pumps for discharge. The Department worked closely with the Environmental Improvement Agency to comply with all regulations. Field inspections were jointly made with EIA personnel to inspect all facilities and sanitary fill.

The Board of Corrections asked to be released from the cleanup of Cimarron Canyon by the boys at Eagle Nest Camp. The Game Commission agreed, and a new contractor had to be found.

Public criticism arose when it was rumored that the Cimarron Canyon Wildlife Area was to be closed to camping, and public meetings and considerable correspondence were needed to air the facts. The Department has realized that pressure on the area had grown to the point that a protective program would have to be put into effect to preserve this scenic canyon bottom. We also faced a health problem there because of the limited and antiquated sanitary facilities.

An agreement was drawn up with the National Park Service whereby they would provide plans and engineering data for three major camping areas with comfort stations and sewage facilities for 164 units. There will also be a daytime-use area at the scenic palisades. Twelve pullouts will be available for fisherman access and picnicking. All other entrances to the stream bottom will be eliminated for the restoration of vegetation and preservation of the area.

The State Game Commission changed the fee system for Cimarron Canyon, Fenton Lake, Pecos River area and Red River Fish Hatchery to charge all overnight campers in these areas \$2.00 per vehicle. Previously parties possessing at least one hunting or fishing license per vehicle camped at no charge. The Commission's action was based on an analysis of expenditures required to maintain facilities at the areas. Fees collected this year approximately equaled expenses on cleanup contracts for all 23 wildlife areas, but left no surpluses for improvements.

SPECIAL SERVICES

The recreational pressure on these areas is indicated by the following table. The community shelters at the Bert Clancy Wildlife Area indicate the increased public use of Game Department facilities: 1,815 people used the shelters last year and 2,370 this season.

WILDLIFE AREA	NUMBER OF CAMPLERS	FELS COLLECTED
Cimarron Canyon	5,753	\$11,506.00
Fenton Lake	1,476	2,952.00
Pecos (excluding shelters)	3,591	7,182.00
Bert Clancy Area Shelters	2,370	790.00
Red River	82	164.00
Totals	13,272	\$22,594.00

The Department provided free camping space for a Santa Fe civic and police organization called H. O. Y. (Help Our Youth). Children 9 through 14 years old were able to enjoy camping and the outdoors for a few days in July and August. The State Game Commission was commended for its participation in this project.

The Department terminated the Charette Lake Concession Agreement. Mr. Beall removed all structures from the concession premises and the Department took over the electrical terminal to run our public water system.

RADIO COMMUNICATIONS

Action of the State Legislature transferred all base and mountaintop equipment to the Radio Communications Department. Mobile radios still belong to the Game Department. Funding of Radio Communications permitted completion of the state microwave system and replacement of our old equipment with new solid-state mobile radios. The cooperative service provided by State Radio Communications has been commendable.

A fire at the Seven Springs Fish Hatchery supervisor's home burned up the radio equipment there. Temporary repairs were made for communications until the new system is installed.

The Department approved installation by a private company of a TV translator on Touch-Me-Not Peak just east of Eagle Nest on the Judge Colin Neblett Wildlife Area.

Our radio operator attended training schools and has in turn trained relief operators for the system.

WAREHOUSE

Surplus materials were collected and made ready for auction. The proceeds amounted to \$3,006.00. Fleet vehicles were processed for replacement and trade or sale. Vehicle sales during the fiscal year brought \$8,710.00, less commissions. Total proceeds were \$9,724.71.

Warehouse personnel supplied stock to fieldmen and hatcheries, made bulk purchases, delivered licenses to vendors, patrolled during hunting seasons, and took field inventories. Signs were also ordered from the sign shop of the State Penitentiary, whose inmates assisted in cleaning our warehouse grounds.

SPECIAL SERVICES

The Environmental Improvement Agency continued to use the warehouse for its etological laboratory.

VEHICLE FLEET

A reduced fleet of 116 vehicles was operated.

Truck working time was lost this year waiting for parts and service from companies whose vehicles we had been forced to purchase because State law requires purchase from the lowest bidder. We recommend that the State Purchasing Office, in weighing bids, take into consideration the price bid plus these operational costs and trade-in values.

Two new patrol boats and an outboard motor and trailer were purchased for use at Caballo, Elephant Butte and Ute Lakes.

Fiscal Management

Hunting and fishing license fees support offices and fieldwork to serve the public and research and management to enhance wildlife resources.



In this fiscal year, revenue from the sale of hunting licenses increased by over \$160,000.00, and total revenue from all sources increased by over \$257,000.00. Although the increases exceeded earlier projections, there is little assurance that such a rate of revenue growth will continue in the future. Disbursements, on the other hand, increased by only \$64,000.00, leaving the Game Protection Fund at year-end with the unusually high cash balance of \$312,221.85. The low increase in expenditures, however, was the result of holding the line. The huge job of conservation and management of New Mexico's wildlife resources cannot be adequately accomplished with such a tight rein on expenditures, particularly at a time when the Department's responsibilities are increasing.

While resident fishing license sales increased slightly, sales of all types of fishing licenses declined by about 4,000 licenses, mainly in the one-, five-, and ten-day license groups. This must be attributed to the unfavorable water conditions that prevailed in many parts of the state during the past two years.

During the year New Mexico Fish and Wildlife Conservation Bonds - Series 1964, in the amount of \$115,000.00 were retired, leaving \$255,000.00 outstanding. The balance in the Game and Fish Bond Interest and Retirement Fund, as of June 30, 1972, amounted to \$397,715.69, which is substantially in excess of the amount needed to retire all outstanding bonds.

Capital improvement projects amounting to \$362,713.03 were accomplished during the year, with bond funds. Federal participation in these projects provided 75 percent of these costs. The balance remaining in the Game and Fish Capital Improvement Fund at the end of the fiscal year was \$88,478.64.

A FIVE-YEAR LOOK AT LICENSE SALES						
LICENSE	FEE	1967-68	1968-69	1969-70	1970-71	1971-72
Resident Fishing	\$ 5.50	79,425	85,999	84,774	86,683	87,636
Resident Bird	5.00	12,683	12,895	10,444	9,739	7,777
Resident Big Game	7.50	53,150	52,486	52,540	56,218	59,801
Resident General Hunting	9.00	14,200	14,855	14,683	15,994	15,437
Res. Gen. Hunting & Fishing	12.00	19,977	23,095	24,745	25,812	27,812
Non-Resident Fishing	10.00	14,336	15,980	16,212	16,420	15,936
Non-Resident Bird	17.00	1,659	1,848	1,750	2,221	1,760
Non-Resident Big Game	50.25	3,117	3,957	4,132	5,624	7,575
Non-Resident Non Game	10.00	111	275	328	313	255
Non-Resident Bear	25.00	79	86	82	187	197
Non-Resident Deer Bow	5.00	166	74	273	531	740
10-Day Fishing	8.00	1,079	1,169	1,409	1,597	1,386
5-Day Fishing	5.25	19,214	20,911	22,773	23,357	21,644
1-Day Fishing	2.00	19,017	20,492	19,957	19,878	15,313
1-Day Fishing	1.25	4,065	1			
Special Philmont Fishing	1.10	1,128	1,952	1,259	1,797	762
Guide License	10.00	47	37			
Resident Bird & Fish	10.50			423	447	497
Resident Trapper	2.50	236	345	397	357	333
Non-Resident Trapper	50.00		5	6	2	1
Ft. Bliss Bird	5.00	37	83	74	126	125
Ft. Bliss Big Game	7.50	345	311	292	261	287
Ft. Bliss Gen. Hunting	9.00	128	233	183	229	206
Ft. Bliss Gen. Hunt & Fish	12.00		1			
Ft. Bliss Antelope	10.00	92	50			
Minnow Licenses	20.00	50	43	44	49	55
Resident Fur Dealers	5.00	4	3	1	11	1
Non-Resident Fur Dealers	50.00	1	3	1		2
Abandoned Young Permits	1.25	2		1		
Propogation Permits	1.00	235	231	243	243	326
Transportation Permits	1.25	98	91	95	103	103
Park & Lake Licenses	3.00					
Park & Lake Licenses	5.00					
Park & Lake Licenses	8.00	3	5	3	2	3
Park & Lake Licenses	10.00	6	4	6	5	11
Park & Lake Licenses	11.00		1		1	
Park & Lake Licenses	15.00	6		5	5	6
Park & Lake Licenses	14.00		1			
Park & Lake Licenses	20.00					
Park & Lake Licenses	25.00	5	2	1	5	3
Park & Lake Licenses	50.00	2			1	2
Animal Dealer Permit	1.00					3
Falcon Permit	1.00					34
Falcon Permit-Exam. Fee	10.00					22
Resident Javelina	10.00	248				50
Resident Antelope	10.00	2,443	2,725	1,877	1,891	1,595
Resident Elk	5.00	4,750	5,121	5,527	5,871	6,773
Resident Sheep	20.00	94	101	82	79	104
Non-Resident Javelina	25.00	2				
Non-Resident Antelope	40.00	50	48	62	64	66
Non-Resident Elk	50.00	442	636	760	941	1,385
Non-Resident Sheep	100.00	5	14	22	4	18
Resident Second Deer	3.00	334	238	210	334	367
Non-Resident Second Deer	6.00	415	230	90	285	208
Pecos Monastery Permits	.50	7,972	8,324	9,287	7,629	
Pecos Monastery Permits	5.00	201	216	219		
Pecos Monastery Permits	1.00	888	1,038	1,108		
Special Area Bow Tags	2.00	2,851	3,701			
Special Area Deer Tags	2.00	3,900	4,714	8,510	10,413	12,758
Shooting Preserve Licenses	25.00	16	14	12	16	5
Shooting Preserve Bird Lic.	5.25		1	2	1	
Shooting Preserve Bird Tags	.10	480	1,000	610	1,020	1,523
Beaver Tags	1.00	1,068	908	776	337	363
Ute Lake Boat Permits	3.00		1,207	1,016		1,625
Ute Lake Boat Permits	1.00		466	307		69
Ute Lake Fishing Permits	1.00	10				
Duplicate Licenses	1.00	2,092	2,156	2,158	2,221	2,286
Camping Permits	2.00			20	1,780	3,744
Resident Cougar	10.00					54
Non-Resident Cougar	100.00					4
		773,065	790,532	291,771	301,154	299,049
NET REVENUE		\$1,870,453.51	\$2,019,000.42	\$2,060,847.75	\$2,213,298.67	\$2,364,407.91

DETAILS OF RECEIPTS - GAME PROTECTION FUND - 1971-1972 FISCAL YEAR			(Total Receipts: \$3,172,488.69)		
ITEMS	AMOUNT	PERCENT OF TOTAL	ITEMS	AMOUNT	PERCENT OF TOTAL
LICENSES AND PERMITS			RECEIPTS FROM SALES		
License Vendor's Sales	\$2,130,609.11		Books - General	\$ 73.00	
Special Hunting Licenses	192,963.25		Books - New Mexico Wildlife Management	72.00	
Special Hunting Area Tags	25,516.25		Books - Woody Plants of New Mexico	941.67	
Minnow Licenses	1,168.00		Subscriptions - New Mexico Wildlife	15,038.10	
Fur Dealers Licenses	105.00		Farm Produce	772.60	
Propagation Permits	326.00		Beaver Pelts	218.40	
Park & Lake Licenses	549.00		Hides, Pelts, Other	-0-	
Ute Lake Boat Permits	4,944.00		Confiscated Game & Fish	3,220.00	
Beaver Tags	363.00		Timber Sales - Cimarron	23,334.00	
Shooting Preserve Licenses & Tags	277.30		Timber Sales - Urraca	150.00	
Camping Permits-General	7,488.00		Gift Certificates	78.50	
Falcon Permits	254.00		Photo Services	14.20	
Animal Dealers Permits	3.00		Live Species - Buffalo	38,896.95	
	<u>\$2,364,497.91</u>	74.53	Live Species - Other	25,000.00	
REVENUE FROM USE OF PROPERTY			Other Miscellaneous	<u>2,385.00</u>	
Grazing Leases	\$ 11,100.43			<u>\$ 110,194.42</u>	3.47
Oil & Gas Leases	5,113.54		CONTRIBUTIONS & DONATIONS		
Uranium Leases			Donations	\$ 7,040.00	
Rent - Land	608.50			<u>\$ 7,040.00</u>	
Rent - Pecos Rec. Area	680.00		NON--EVENTUE RECEIPTS		
Rent - Dwellings	12,975.00		Sale of Land	\$ 2,294.50	
Concession - Fenton Lake	27.50		Sale of Equipment	15,107.00	
Concession - Chavette Lake	150.00		Sale of Automobiles	14,045.86	
Rent - Equipment-General	308.57		Insurance Adjustments	6,640.00	
Rent - Aircraft	538.41		Refunds-Prior Year Costs	8,641.54	
Rent - Helicopter	5,743.00		Refunds-Current Year Costs	9,006.43	
Rent - House Trailer	428.79		Refunds-Vendor Bond Costs	1,122.00	
Other Use Permits	7,320.18		Cancelled Warrants	109.70	
Seismograph Survey Damages	50.00			<u>\$ 56,967.03</u>	1.80
	<u>\$ 45,043.42</u>	1.42	FINES, FORFEITS & PENALTIES		
FEDERAL REIMBURSEMENTS			Civil Damages	3,149.00	
P-R Wildlife Projects	\$ 458,777.97			<u>\$ 3,149.00</u>	.10
D-J Fisheries Projects	88,800.00				
Colorado River Storage Project	3,682.03				
Other Federal Projects	<u>34,336.31</u>				
	<u>\$ 585,596.31</u>	18.46			

DETAILS OF DISBURSEMENTS - GAME PROTECTION FUND - 1971-1972 Fiscal Year				(Total: \$2,751,935.39)	
ITEMS	AMOUNT	PERCENT OF TOTAL	ITEMS	AMOUNT	PERCENT OF TOTAL
PERSONAL SERVICES			OTHER CONTRACTUAL SERVICES		
Exempt Positions-Full Time	\$ 19,038.15		Printing Services	\$ 37,640.14	
Permanent Positions-Full Time	1,325,420.34		Photographic Services	828.20	
Permanent Positions-Part Time	518.40		Advertising	158.61	
Temporary Positions-Full Time	30,075.21		Reporting & Recording	750.21	
Temporary Positions-Part Time	12,825.87		Audits	4,000.00	
Overtime	1,827.28		Attorney Fees	4,500.00	
Terminal Leave	5,548.77		Medical Services	1,221.82	
	<u>\$1,395,254.02</u>	50.7	Engineering Fees	2,665.27	
EMPLOYEE BENEFIT PLANS			Services of Other State Agencies	39,543.44	
Group Insurance	\$ 26,609.98		Professional Services:		
PERA-Retirement Contributions	67,935.55		Data Processing	(124.01)	
FICA-Social Security Contrib.	63,531.04		Artwork	1,339.97	
Workmen's Compensation Ins.	11,647.65		Other	37,683.60	
False Arrest Insurance	874.24		Communications:		
Educational-Tuition and Registration Fees	481.26		Postage	27,129.52	
	<u>\$ 171,139.72</u>	6.2	Telephone & Telegraph	44,539.05	
TRAVEL			Bond Premiums	323.23	
In-State Mileage & Fares	\$ 3,542.31		Utilities	14,910.57	
In-State Meals & Lodging	87,529.93		Rent of Lands & Buildings	97,537.25	
Out-of-State Mileage & Fares	7,738.53		Rent of Equipment	31,943.62	
Out-of-State Meals & Lodging	6,244.60		Rent of Radios	9,208.39	
Transportation:			Subscriptions & Dues	3,203.32	
Gas & Oil	72,549.44		Freight & Express Out	901.54	
Maintenance & Repairs	65,673.05		Employee Moving Allowances	4,246.29	
Insurance	9,858.38		Other Contractual Services	3,103.72	
Rentals	16,777.35			<u>\$ 367,254.75</u>	13.3
	<u>\$ 269,895.69</u>	9.8	OTHER OPERATING COSTS		
MAINTENANCE & REPAIRS			Commission Expense	\$ 3,580.41	
Grounds, Roads, Fences & Waterways	\$ 33,777.35		Miscellaneous Other Expense	13,304.08	
Furniture, Fixtures & Equipment	4,177.91			<u>\$ 22,884.49</u>	.7
Office Equipment	3,251.21		CAPITAL OUTLAY		
Heavy Field Equipment	8,263.74		Land:		
Buildings & Structures	11,743.05		Land Acquisitions	\$ 1,862.14	
Property Insurance	3,713.00		Furniture & Fixtures:		
Maintenance Supplis & Services	3,037.45		Office	1,889.58	
	<u>\$ 67,963.71</u>	2.5	Household	17.20	
SUPPLIES & MATERIALS			Eq. Rent & Machinery:		
Office Supplies	\$ 30,916.95		Office	4,304.06	
Medical, Laboratory & Photographic	2,947.24		Household	69.95	
Field Supplies:			Shop	51.50	
General	31,889.53		Lab & Photographic	5,998.03	
Fish & Game Feed	77,283.33		Farm & Field	100,935.71	
Stocking Supplies	10,916.27		Communications	388.00	
Small Tools & Accountable Supplies	1,536.16		Boats & Motors	9,460.75	
Heavy Equipment Operations	3,387.40		Dogs, Pack Animals, Cattle	3,575.00	
Uniforms	12,648.94		Library Books, Museum Specimen	213.53	
Educational Supplies	6,109.55		Automobiles	146,126.05	
Other Miscellaneous Supplies	2,155.00		Buildings & Structures:		
	<u>\$ 179,790.37</u>	6.5	Installed Equipment	2,861.20	
				<u>\$ 277,752.74</u>	10.1

SUMMARY OF DISBURSEMENTS BY ACTIVITIES - 1971-72 FISCAL YEAR										
	PERSONAL SERVICES	EMPLOYEE BENEFIT PLANS	TEL	MAINTENANCE AND REPAIRS	SUPPLIES AND MATERIALS	OTHER CONTRACTUAL SERVICES	OTHER OPERATING COSTS	CAPITAL OUTLAY	TOTAL	PERCENT OF GRAND TOTAL
ADMINISTRATION SECTION										
Administration-General	\$ 33,266.57	\$ (2,070.40)	\$ 11,200.65	\$ 721.00	\$ 3,381.72	\$ 29,086.39	\$ 3,636.34	\$ 1,795.40	\$ 81,017.67	
Airplane Pilots	21,717.05	2,603.75	(1,313.61)	46.31	252.38	2,098.50	199.10	30.45	25,033.93	
Northwest Area-Albuquerque	106,786.37	18,069.32	26,198.01	1,354.90	2,418.23	12,068.83	103.41	185.41	161,194.48	
Southwest Area-Las Cruces	70,755.86	9,086.90	15,160.88	871.42	1,353.54	7,637.48	112.40	3,075.93	108,016.41	
Northeast Area-Daton	75,047.47	3,954.82	28,391.78	1,340.30	1,948.54	9,421.88	17.45	10,542.25	132,684.49	
Southeast Area-Roswell	90,644.88	10,192.10	18,177.60	751.84	1,890.29	8,681.31	2.73	17,717.96	137,078.71	
Indian Administration Section	387,238.70	47,336.49	51,195.37	5,035.37	17,244.76	68,994.39	8,071.43	33,367.40	645,043.65	
Percent	62.01	6.79	14.14	.29	1.74	10.78	.61	5.18	120.00	23.44
WILDLIFE OPERATIONS SECTION										
Assistant Director-Operations	15,507.10	1,439.71	3,284.77	-0-	102.18	921.63	87.50	73.80	21,416.89	
Planning Officer	10,268.26	1,169.56	172.34	-0-	102.86	723.72	-0-	3,122.96	15,759.75	
	25,775.36	2,609.27	3,457.11	-0-	205.04	1,645.35	87.50	3,196.76	37,176.64	
Percent	49.33	7.02	4.84	-0-	.35	4.41	.23	1.67	100.00	1.33
GAME MANAGEMENT										
General	39,994.46	3,508.40	6,195.90	900.92	818.13	15,639.47	33.79	261.83	67,354.90	
Game Bird Farm	102.87	17.73	46.30	317.68	96.72	603.70	-0-	-0-	1,185.00	
Trapping	33,638.81	4,743.72	8,042.35	271.61	789.21	3,349.45	521.84	2,362.00	53,718.99	
Exotic Game Species	10,100.77	1,268.20	2,462.04	1,974.66	2,142.20	928.94	150.00	162.40	19,189.43	
Federal Projects:										
(P-R) Coordination	28,923.28	3,305.15	6,234.66	180.15	449.20	2,761.58	-0-	-0-	41,854.02	
(P-R) Research	152,109.01	17,385.39	64,127.60	1,631.33	8,943.38	42,957.84	471.20	30,689.31	318,315.06	
(P-P) Development	51,546.53	6,360.62	6,754.64	15,740.02	20,558.57	8,437.06	17,090.77	50,906.71	111,394.72	
(P-P) Land Acquisition	10,872.12	1,315.96	5,358.59	-0-	591.93	48,674.69	50.00	1,842.14	69,325.43	
Game Habitat Development	7,944.37	1,137.32	1,248.88	106.54	85.89	9,004.69	-0-	3,573.27	23,100.96	
Pecos Valley Mourning Doves	2,891.72	165.73	1,035.14	.50	47.97	143.76	-0-	12.75	4,293.77	
Public Works Program	4,718.32	313.88	2,738.65	-0-	183.04	325.00	-0-	-0-	7,778.89	
	362,844.26	39,521.90	104,344.75	21,103.41	34,702.44	132,826.20	18,317.60	89,430.61	783,511.17	
Percent	43.76	5.04	13.32	2.70	4.43	16.95	2.34	11.46	100.00	26.47
FISH MANAGEMENT										
General	30,238.69	(733.24)	2,084.44	278.16	340.65	3,271.54	-0-	3,468.34	38,888.60	
Hatcheries:										
Glenwood	12,555.69	1,491.62	1,958.08	2,023.04	2,832.91	1,427.79	-0-	3,682.53	26,171.66	
Lisbon Springs	29,753.62	4,574.42	2,086.30	756.90	3,926.24	4,320.50	64.80	3,580.05	51,962.83	
Parkview	43,590.41	6,320.48	7,049.36	1,649.09	20,273.11	3,324.25	15.89	2,209.80	86,328.79	
Red River	62,768.85	9,620.76	6,931.82	1,985.83	35,398.85	4,128.31	25.00	8,053.19	128,912.61	
Seven Springs	13,794.88	2,024.53	1,835.23	615.69	5,713.34	1,656.22	-0-	190.63	25,930.52	
Rock Lake	24,728.90	3,465.49	4,189.06	447.79	16,354.62	2,374.86	-0-	3,272.98	55,037.70	
Warm Water Fish	656.45	94.64	1,911.11	-0-	3.50	3,449.98	-0-	-0-	6,139.70	
Federal Projects:										
(D-J) Coordination	14,753.56	1,678.26	3,343.55	104.47	522.89	3,775.89	-0-	-0-	24,416.89	
(D-J) Research	35,901.16	4,814.38	7,247.27	742.86	1,085.13	8,673.44	-0-	11,421.60	70,085.34	
(D-J) Development	2,858.84	354.09	2,375.43	1,123.68	799.37	197.83	-0-	-0-	7,425.24	
(D-J) Land Acquisition	-0-	-0-	-0-	-0-	-0-	14,100.00	-0-	-0-	14,100.00	
Fish Habitat Development	-0-	-0-	-0-	236.68	20.25	21,395.98	-0-	-0-	21,522.91	
Colorado River	3,120.53	459.63	1,493.20	25.00	1,683.03	78.41	-0-	5,212.54	12,472.34	
Commercial Fisheries	4,551.01	606.55	835.80	1,635.62	1,680.69	8,498.05	-0-	17,888.99	35,192.71	
	279,012.55	35,343.03	43,344.65	11,620.81	55,544.58	85,752.34	105.69	59,210.65	666,321.36	
Percent	46.82	5.01	7.15	1.92	15.76	13.32	.06	9.48	100.00	27.03
TOTAL WILDLIFE OPERATIONS SEC.	647,632.21	78,113.20	151,544.51	22,764.22	130,452.04	215,263.96	18,910.79	152,948.00	1,427,008.95	
Percent	45.38	5.47	10.61	2.29	9.14	15.00	1.30	10.72	100.00	31.65

	PERSONAL SERVICES	EMPLOYEE BENEFIT PLANS	TRAVEL	MAINTENANCE AND REPAIRS	SUPPLIES AND MATERIALS	OTHER CONTRACTUAL SERVICES	OTHER OPERATIONAL COSTS	CAPITAL OUTLAY	TOTAL	PERCENT OF GRAND TOTAL
<u>WILDLIFE SERVICES SECTION</u>										
Assistant Director-Services	44,960.95	1,554.98	4,390.44	-0-	175.93	1,202.14	-0-	20.35	22,304.69	
Personnel Officer	5,608.48	1,230.71	147.97	37.50	319.12	435.55	-0-	940.57	12,743.10	
	<u>50,569.43</u>	<u>2,785.69</u>	<u>4,538.41</u>	<u>37.50</u>	<u>495.05</u>	<u>1,637.69</u>	<u>-0-</u>	<u>960.92</u>	<u>35,047.79</u>	
Percent	70.11	7.13	12.95	.11	1.41	4.47	-0-	2.86	100.00	1.27
<u>FISCAL DIVISION</u>										
General	150,641.51	24,244.54	1,688.17	1,263.25	21,817.76	32,713.65	-0-	4,691.93	237,410.16	
	<u>150,641.51</u>	<u>24,244.54</u>	<u>1,688.17</u>	<u>1,263.25</u>	<u>21,817.76</u>	<u>32,713.65</u>	<u>-0-</u>	<u>4,691.93</u>	<u>237,410.16</u>	
Percent	63.53	10.23	.71	.53	9.20	13.62	-0-	1.94	100.00	4.42
<u>SPECIAL SERVICES DIVISION</u>										
General	27,999.11	2,249.07	1,235.15	84.99	421.59	3,029.96	-0-	3,872.94	39,214.81	
Communications	5,328.00	550.24	12.00	-0-	-0-	(1,864.03)	-0-	-0-	3,018.63	
Santa Fe Warehouse	7,783.00	996.98	(960.29)	(3,411.35)	264.90	1,713.20	24.25	(1,123.06)	6,287.63	
Automobile Fleet Control	-0-	-0-	(3,044.94)	-0-	-0-	-0-	-0-	73,162.81	70,117.87	
Force Account	2,049.32	362.43	2,015.93	3,129.71	644.18	(6,352.82)	44.80	(1,950.50)	17,078.26	
Work Order Costs	22,608.42	2,646.69	11,221.51	12,790.84	884.87	9,001.93	-0-	757.53	59,631.79	
Work Order Costs-Distributed	(19,871.90)	(2,051.92)	(9,422.30)	(18,504.58)	(472.43)	(8,545.41)	-0-	(1,757.53)	(52,631.79)	
Recreation Areas	5,636.27	815.40	348.27	32,924.84	1,708.37	463.06	-0-	4,160.25	44,086.64	
	<u>51,525.82</u>	<u>5,709.31</u>	<u>259.73</u>	<u>27,064.65</u>	<u>3,651.44</u>	<u>(4,575.16)</u>	<u>89.05</u>	<u>73,192.44</u>	<u>156,687.32</u>	
Percent	32.88	3.84	.10	17.27	2.20	(2.92)	.08	44.67	100.00	5.60
<u>INFORMATION & EDUCATION DIVISION</u>										
General	29,804.11	2,996.32	3,127.56	546.63	2,760.84	16,016.85	5.88	2,686.46	58,345.45	
New Mexico Wildlife Magazine	14,225.29	1,818.66	862.91	197.35	762.20	19,136.45	1.00	468.00	37,545.86	
Out of State Promotion	274.32	39.43	451.50	-0-	-0-	37.13	52.41	3-	842.79	
Information:										
NE Area-Albuquerque	8,973.82	1,161.12	1,676.76	84.70	279.23	2,686.99	-0-	15.39	14,860.01	
TV & Radio Program	10,060.00	1,261.13	333.68	180.50	1,320.06	1,874.53	-0-	1,626.64	16,656.54	
SE Area-Las Cruces	811.81	108.43	29.30	-0-	2.50	1,277.25	-0-	-0-	2,229.29	
DE Area-Raton	-0-	-0-	-0-	-0-	-0-	817.97	-0-	-0-	817.97	
SE Area-Powell	2,912.62	428.55	696.74	33.50	33.43	1,048.25	-0-	99.50	5,232.59	
Hunter Safety Program	15,430.58	1,907.00	2,369.88	60.01	5,791.82	3,478.39	49.25	4,701.73	35,718.64	
	<u>82,692.55</u>	<u>9,721.24</u>	<u>9,548.31</u>	<u>1,464.69</u>	<u>10,450.08</u>	<u>46,375.81</u>	<u>180.54</u>	<u>11,597.92</u>	<u>172,349.16</u>	
Percent	47.16	5.64	5.54	.86	6.33	26.97	.11	6.73	100.00	6.20
<u>CONSERVATION ENFORCEMENT</u>										
General	42,957.31	5,497.32	8,848.74	271.83	1,182.94	4,431.78	32.68	1,017.90	66,155.51	
Fed. Proj. Law Enf. Study	8,198.79	1,156.92	2,612.45	-0-	196.32	415.00	-0-	26.33	12,415.81	
	<u>51,156.10</u>	<u>6,654.24</u>	<u>11,461.19</u>	<u>271.83</u>	<u>1,379.26</u>	<u>4,846.78</u>	<u>32.68</u>	<u>1,044.23</u>	<u>78,571.32</u>	
Percent	65.01	8.49	14.54	.34	1.75	6.72	.04	1.33	100.00	2.47
TOTAL WILDLIFE SERVICES	<u>160,343.61</u>	<u>49,190.03</u>	<u>27,355.27</u>	<u>20,123.77</u>	<u>38,093.61</u>	<u>82,446.60</u>	<u>302.27</u>	<u>21,617.34</u>	<u>679,882.75</u>	
Percent	53.01	7.24	4.02	4.43	5.60	11.21	.04	15.45	100.00	14.71
DEPARTMENT GRAND TOTAL	1,395,254.02	171,139.72	269,095.59	67,963.71	179,790.37	367,254.75	22,884.49	277,752.74	2,751,935.39	
Percent	50.70	6.22	9.81	2.47	6.53	13.35	.83	10.09	100.00	100.00

CASH FUND SUMMARY - 1971-1972 Fiscal Year

GAME PROTECTION FUND

Balance - July 1, 1971		\$ 116,597.58
Total Receipts		<u>2,172,488.69</u>
		3,289,086.27
Total Disbursements		
Current Operations	\$2,751,935.39	
Transfers to Bond Interest & Retirement Fund	<u>237,863.00</u>	<u>2,989,798.39</u>
		299,287.88
Accounts Receivable Adjustment		
Balance 7/1/71	1,275.57	
Balance 6/30/72	<u>(1,370.12)</u>	<u>(94.55)</u>
Accounts Payable		
Unpaid Incumbrances		40,137.63
Prior Year Adjustments		
Federal Reimbursements		(28,539.47)
Pond Project Cost Transfers		2,020.85
Payroll Adjustment		38.40
Fund Transfers in Transit		<u>(628.89)</u>
Balance - June 30, 1972		<u>\$ 312,221.85</u>

GAME SUPPLY FUND

Balance - July 1, 1971	\$ 594.75
Receipts & Transfers	<u>1,945.87</u>
	2,540.62
Disbursements & Transfers	<u>1,316.30</u>
	1,224.32
Cancelled Warrant	1.00
Balance - June 30, 1972	<u>\$ 1,225.32</u>

GAME & FISH - CAPITAL IMPROVEMENT FUND II

Balance - July 1, 1971		\$ 125,083.30
Receipts:		
Interest on Investments	\$ 3,940.49	
Federal Reimbursements	<u>295,255.06</u>	<u>299,195.55</u>
		424,278.85
Disbursements:		
Bond Project Costs	(330,725.18)	
Fund Transfer in Transit	12.35	
Project Cost Adjustments	<u>(5,087.38)</u>	<u>(335,000.21)</u>
Balance - June 30, 1972		<u>\$ 88,478.64</u>

GAME & FISH - BOND INTEREST & RETIREMENT FUND

Balance - July 1, 1971		\$ 281,752.62
Receipts:		
Transfers from Game Protection Fund	237,863.00	
Interest on Investments	<u>12,882.10</u>	<u>250,745.10</u>
		532,502.72
Disbursements:		
Principal Payments	(120,000.00)	
Interest Coupons Paid	<u>(14,519.84)</u>	<u>(134,787.03)</u>
Service Charges	<u>(267.19)</u>	
		<u>\$ 397,715.69</u>

GAME & FISH - SNOWMOBILE FUND

Balance - July 1, 1971		\$ -0-
Total Receipts:		7,080.00
Total Disbursements:		
Current Operations	(1,194.58)	
Fund Transfer in Transit	<u>616.54</u>	<u>(1,578.04)</u>
Balance - June 30, 1972		<u>5,501.96</u>

Fisheries Tables



Trout hatcheries not only produce fish for anglers; they also provide recreational and educational experiences for hatchery visitors.

STATE HATCHERY OPERATIONAL COST OF TROUT PRODUCED AND PLANTED - 1971-72 Fiscal Year							
	GLENWOOD	LISBOA SPRINGS	PARKVIEW	RED RIVER	SEVEN SPRINGS	ROCK LAKE	TOTAL
Fish food	\$ 1,196.38	\$ 8,444.36	\$15,156.54	\$ 37,982.65	\$ 3,392.05	\$14,926.59	\$ 31,099.07
Operational	18,003.42	38,708.00	49,052.74	61,394.64	17,301.20	27,009.72	211,469.72
Trout eggs	1,448.03	2,266.17	2,608.89	7,209.11	134.37		13,666.57
Distribution	4,662.00	3,211.10	15,083.22	18,421.66	3,522.30	11,576.88	56,477.16
Total Operational Cost	\$25,310.33	\$52,629.63	\$81,901.39	\$125,008.66	\$24,349.92	\$53,513.19	\$362,712.52
Cost of 11 trout planted	72.93	134.96	79.38	125.39	162.03	293.11	117.06
Cost per pound trout planted	0.92	1.26	0.86	0.98	0.94	0.68	0.91
Cost per 11 trout produced	67.00	45.94	68.38	86.89	121.45		91.93
Cost per pound trout produced	3.03	1.02	0.99	0.94	1.23	0.87	1.016

INVENTORY OF TROUT - JUNE 30, 1972							
HATCHERY	INCHES	RAINBOW	NEW MEXICO CUTTHROAT	DOLLY VARDEN	CONO SALMON	NUMBER	POUNDS
Glennwood	2 - 3	79,695				79,695	315.00
	3 - 4	13,329				13,329	272.00
	4 - 5	7,040				7,040	200.00
	5 - 6		66A			66	4.00
	6 - 7	8,591				8,591	953.00
Totals - Glennwood						103,721	1,744.00
Lisboa Springs	1 - 2	99,264	55,487			154,751	92.50
	2 - 3	51,359				51,359	565.00
	3 - 4	99,460				99,460	1,595.00
	5 - 6	20,767				20,767	1,499.00
	7 - 8	2,830				2,830	566.00
	8 - 9	6,721				6,721	1,547.00
	9 - 10	20,310				20,310	7,357.00
	10 - 11	9,497				9,497	4,248.00
	11 - 12	1,948				1,948	1,082.00
Totals - Lisboa Springs						367,643	18,551.50
Parkview	1 - 2	225,945				225,945	590.50
	2 - 3	555,992				734,388	5,120.50
	3 - 4	104,432			198,388	104,432	1,528.00
	6 - 7	1,827				1,827	207.00
	8 - 9	14,048				14,048	3,505.00
	9 - 10	36,078				36,078	17,452.00
	10 - 11	15,754				15,754	6,374.00
	11 - 12	2,419 (Brood)				2,419	1,350.00
	17 - 18	4,236 (Brood)				4,236	2,355.00
	Show Pond	163AA	2AAA	6		171	1,015.00
Totals - Parkview						1,159,290	42,007.00
Red River	3/4 - 1		10,000			10,000	2.00
	1 - 2	288,000				288,000	300.00
	2 - 3	76,128				76,128	331.00
	3 - 4	244,910				244,910	4,245.00
	4 - 5	7,700				7,700	350.00
	5 - 6	16,700	2,100			18,800	1,375.00
	6 - 7	45,290				45,290	4,295.00
	7 - 8	24,580				24,580	3,880.00
	8 - 9	76,820				76,820	22,725.00
	9 - 10	89,325				89,325	29,775.00
	10 - 11	52,530				52,530	23,670.00
	11 - 12	16,690				16,900	10,600.00
Totals - Red River						950,983	101,748.00
Seven Springs	1 - 2		53,200			53,200	21.00
	2 - 3	162,680				162,680	1,149.00
	4 - 5	25,000				25,000	1,030.00
	8 - 9	18,500				18,500	5,000.00
	13 - 14	1,500				1,500	1,500.00
	17 - 18	500				500	1,000.00
Totals - Seven Springs						261,380	9,670.00

INVENTORY OF TROUT JUNE 30, 1972, cont.							
HATCHERY	INCHES	RAINBOW	NEW MEX. CUTTHROAT	WOLLY VARDEN	CUMU SALMON	NUMBER	POUNDS
Rock Lake	3 - 4	133,425				133,425	3,050.00
	4 - 5	92,650				92,650	3,293.00
	5 - 8	25,916				25,916	4,115.00
	9 - 11	4,410				4,410	1,100.00
	11 - 12	5,040				5,040	3,150.00
	12 - 13	8,425				8,425	6,750.00
	14 - 15	514				514	670.00
Totals - Rock Lake						270,380	21,128.00

Mixture of Gila natives and rainbow
Includes 3 albino rainbow
Brook trout

COST PER TROUT PRODUCED, EXCLUSIVE OF CAPITAL OUTLAY - 1971-72 Fiscal Year							
	GLENNWOOD	LISBON SPRINGS	PARKVIEW	RED RIVER	SEVEN SPRINGS	ROCK LAKE	TOTAL AVERAGE
Fish food	0.143	0.164	0.183	0.286	0.172	0.242	0.227
Distribution	0.559	0.062	0.182	0.139	0.178	0.137	0.158
Eggs	0.174	0.044	0.032	0.054	0.007		0.038
Other operating costs	2.158	0.754	0.593	0.462	0.877	0.438	0.593
Total	3.034	1.024	0.990	0.941	1.234	0.867	1.016
Conversion	1.38	1.68	1.82	2.97	1.74	2.41	2.32

OPERATION OF CLASS A LAKES - Calendar Year 1971							
SPECIES	ACQUIRED IN 1971		DISPOSED OF IN 1971		ON HAND 12/31/71	BUSINESS TRANSACTIONS	NO OF PERMITS
	Number	Pounds	Number	Pounds	Number Pounds		
Rainbow trout	179,585	36,079	105,562	63,233	535,020 15,998	\$131,617.58	23,521
Bass	95	260	709		80 540	188.00	198
Channel Catfish	21,300	2,263	1,247	1,184	11,060 3,780	3,169.50	
Bluegill	1,000	2,500	1,840		1,000		
Bullfrogs			9				
						\$134,975.38	23,709

TROUT PLANTED IN PUBLIC WATERS - 1971-72 Fiscal Year				
CUTTHROAT	BROWN	WATER	RAINBOW (1/2 Vol., Garden, Kokanee, Coko Salmon)	
Fry or Fingerling Over 6"	Fry or Fingerling		6 Inches or Over	Fry or Fingerling
Number	Pounds			
3,750		Agua Fria Creek	75	30
		Alice Lake (one of Trampas Lakes)		
		Alice Lake (near Raton)	940	500
		Alto Lake	3,722	2,870
		Antelope River, tributary to San Juan		30,030
		Astean Lake	4,305	3,600
		Bear Canyon Lake (Grant County)	5,359	2,200
		Belen Drain	1,990	1,350
		Berrendo Creek	1,430	1,100
		Big Tesuque (Lower)	56	43
		Bill Evans (Mangas) Lake	910	4,850
		Black River	1,435	1,200
		Bluewater Lake		165,335
		Bonito Creek	637	500
		Bonito Creek (HF)	357	325
		Bonito Creek (SF)	340	275
		Bonito Lake	25,640	15,750
		Bottomless Lakes	2,551	2,000
	11,748	Brazos River (Lower)	8,289	3,693
		Cabresto Creek	926	370
		Cabresto Lake	2,880	1,540
		Canjilon Lakes	5,585	3,025
2,600		Capulin Creek	10,361	4,550
4,760		Carlsbad Municipal Lake	3,944	3,300
		Cebolla Creek (Upper)	2,669	1,275
		Cebolla Creek (Middle)	1,944	909
1,300		Cebolla Creek (Lower)	1,681	757
		Cecilia Creek		
		Chama River (U) between bridges	4,971	2,250
			4,006	2,390
		Chama River (Middle)	16,189	6,833
			6,586	3,785
	43,000	Chama River (Lower) below dam	4,806	2,098
			4,975	2,543
		Chaparral Lake	3,971	3,307
		Charetta Lake (Lower)	20,930	11,800
		Chaves Creek	294	93
		Chicosa Lake	8,149	4,810
		Cimarron River (Upper)	10,889	5,660
		Cimarron River (Lower)	1,961	1,108
		Cimarron River (Gravel Pits)	1,811	990
		Clayton Lake	15,392	6,538
		Columbine Creek	170	100
		Conservancy Park Lake	7,180	4,650
		Corrales-Riverside Drain	2,101	1,360
4,000		Costilla River	5,526	2,940
4,086		Cow Creek (Upper)		
		Cow Creek (Middle)	3,345	1,710
		Coyote Creek, tributary to Chama	255	85
	10,036	Coyote Creek (Lower) tributary to Mora	2,028	1,016
		Del Rio Drain	5,925	3,950
		Dry Cimarron River	958	613
		Eagle Rock Lake	2,607	1,745
	20,425	El Porvenir Creek	230	100
		El Rito Creek	1,440	520
		El Vado Lake	4,320	2,000
			700	1,400
5,000	22,500	Embudo Creek		
		Encantada Lake		
		Escondido Lake	1,449	1,180

TROUT PLANTED IN PUBLIC WATERS - 1971-72 Fiscal Year					
CUTTLEFOAT	BROWN	WATER	RAINBOW	Dolly Varden, Kokanee, Coho Salmon	
Try or Fingerling	Over 6" Fingerling		6 Inches or Over Number	Pounds Fingerling	
3,900	760	Estancia Lake	615	400	
		Eunica Lake	2,168	1,800	
		Fawn Lakes	3,119	1,575	
		Fenton Lake	16,262	7,870	4,500
		Gallina Creek, tributary to Chama	1,091	395	
		Gallinas River (M), tributary to Mora	2,780	1,509	
		Gallinas River (L), tributary to Mora	780	500	
		Gascon Creek	460	200	
		Gila River (Upper)	3,324	1,565	
		Gila River (L), Red Rock	1,448	965	
		Gila River (L), above Cliff	3,183	1,785	
		Gila River (East Fork)	755	525	51,360
		Gila River (West Fork)	1,568	863	51,360
		Gila River (Middle Fork)			51,360
		Gilita Creek	1,265	500	
		Glenwood Pond	2,479	1,340	
		Goose Lake	2,040	900	
		Green Acres Lake	2,960	2,400	
		Green Meadow Lake	4,524	3,481	
5,000 4,560	34,163	Guadalupe River	1,000	552	10,000
		Hazel Lake (one of Trampas Lakes)			
		Heart Lake			
		Heron Reservoir	26,255 ¹ 2,788 ³	2,958 ¹ 276 ³	35,751 ³
10,000		Holy Ghost Creek	2,798	1,285	
		Hondo River (Lower)	100	50	
		Hondo River (Upper)	4,100	2,200	
9,120		Hopewell Lake	7,298	3,613	
		Horseshoe Lake			
		Industrial School Lake (Springer)	834	525	880
		Jack's Creek	408	182	
10,000 2,500		Jackson Lake	1,570	1,000	12,168
		Jaritas Lake	690	300	
		Jemez River (Battleship Rock to Soda Dam)	4,924	2,290	
		Jemez River (below Soda Dam)	4,924	3,320	
		Jemez River (East Fork)	2,089	1,270	
		Johnson Lake			
		Katherine Lake			
1,008		Laguna Madre	2,700	1,300	75,640
		Lagunitas Lakes	4,835	2,500	
		La Junta Creek	3,365	1,638	
		Lake Farmington	1,200	1,000	
		Lake Roberts	10,130	6,800	15,658
		Lake Van	4,686	3,650	
		Las Trampas Creek	1,090	550	
		Latir Creek (East)	940	495	
		Latir Lakes			
		Little Blue Lake			
27,360 4,560		Little Chama River	225	75	
		Little Creek Pond	1,078	608	
		Little Rio Grande (Lower)	2,307	850	
		Los Alamos Reservoir	3,979	2,195	3,032
		Los Pinos River (Lower)	1,380	900	
		Lost Lake (Headwaters of Red River)			
		Lovington City Pond	1,445	1,200	
		Lujan Creek	264	132	
3,750		Maestas Lake (Lost) headwaters Maestas Cr.			
		Maloya Lake	10,710	6,000	10,920
		Manzano Lake	997	840	
		Maxwell Lake 13	4,200	2,500	

TROUT PLANTED IN PUBLIC WATERS - 1971-72 Fiscal Year				
FUNDING	FUNDING	WATER	RAINFALL (Polly Garden, Kokanee, Coho Salmon)	
			6 Inches or Over Number	Pounds Pay or Funding
3,750	16,944	McAllister Lake	4,530	300
		McGaffey Lake	3,755	2,100
		Middle Fork Lake (Rio la Casa)		
		Middle Fork Lake (tributary to Red River)	2,160	900
		Mogollon Creek	220	157
		Monastery Lake	9,075	4,950
		Mora-Pecos River (Lower)	4,045	1,950
		Mora River (U)	292	146
		Mora River, tributary to Canadian (L)	1,490	850
		Murphy Lake	8,287	5,285
5,000	21,615	Navajo Lake		
		Navajo River	662	245
		Negrito Creek	1,479	928
		Nogal Lake	6,316	5,250
		North Fork Lake (Rio la Casa)		
		Nutrias Lakes, tributary to Nutrias Creek	5,420	2,183
		Oasis Park Lake	1,605	1,350
		Pacheco Lake		
		Panchuela Creek (Upper)		
		Panchuela Creek (Lower)	1,519	730
55,000	32,424	Pecos Baldy Lake		
		Pecos River (above falls)		
		Pecos River (L), Anton Chico		
		Pecos River (Middle)	31,120	15,085
		Pecos River (Upper)		
		Pecos River (Lower)	1,476	823
		Pecos River (below Alamogordo Dam)	1,868	1,400
		Pecos River (Boiling Springs)	1,420	1,210
		Penasco River	3,383	2,240
		Penas Negras		
4,760	27,000	Peralta Drain	3,650	2,300
		Pinoneer Lake		
		Power Dam Lake	5,903	3,770
		Quemado Lake	11,476	8,100
		Red River (Upper)	6,549	3,238
		Red River (Middle)	19,888	9,476
		Red River (Lower)	11,286	6,290
		Red River (East Fork)	999	460
		Red River (West Fork)	1,091	502
		Resumidero (Jemez)		
5,100	100,322	Rio del Medio	375	125
		Rio del Oso		
		Rio en Medio, tributary to Hambe	195	150
		Rio Frijoles	684	263
		Rio Grande (Upper)		
		Rio Grande (Middle)	3,400	2,000
		Rio Grande (below Velarde)	3,148	1,860
		Rio Grande (below Elephant Butte)	2,660	1,575
		Rio la Casa (Lower)	2,750	1,364
		Rio Las Vacas (Lower)	4,797	2,202
2,600	25,052		1,511	475 USFWS
		Rio Pueblo (Upper)	4,662	2,205
		Rio Pueblo (Lower)	13,083	6,059
		Rio Puerco, tributary to Chama	1,110	420
		Rio Puerco (Jemez)		
		Rio Valdez		
		Rito De Los Chimayosos		
		Rito Presa (Clear Creek)	311	183
		Rito Del Padre		
		Roswell Kids' Pond	1,069	840
10,000	22,592	Ruidoso River (Middle)	4,390	2,825
		Ruth Lake (one of Trampas Lakes)		
		Sabinal Drain	2,293	1,288
		San Antonio River, trib. to Jemez (L)	7,854	3,680
2,500	99,000			
1,300	99,000			
5,000	99,000			
10,000	99,000			
2,500	99,000			

TROUT PLANTED IN PUBLIC WATERS - 1971-72 Fiscal Year					
CUTTHROAT	BROWN	WATER	RAINFORE (Dolly Varden, Rainbow, Cope Silver)		
Tag or Fingering	Tag or Fingering		6 Inches or Over Number	Pounds	Fingering
10,120 5,000	98,900	San Francisco River	504	403	
		San Gregorio Lake	3,160	1,570	
		San Juan River			178,441
		San Leonardo Lake			
5,000		Santa Barbara River (Lower)	6,174	2,000	
		Santa Cruz Lake	33,170	14,890	29,762
		Sapello Creek (U), tributary to Mora	172	75	
		Sapello Creek (L), tributary to Mora	115	50	
5,000		Seven Springs Ice Pond	1,176	560	
		Snow Lake	11,460	6,500	42,864*
		Springer Lake			13,728
		Stewart Lake			
5,000		Storrie Lake	9,373	5,845	86,186
		Swan Lake	800	650	
		Taos Creek (Upper)	880	200	
		Tome Drain	1,078	678	
4,560 3,000		Truchas Lake			
		Tularosa Creek, near Tularosa	1,864	1,480	
		Tularosa Creek, tributary to Gila River	667	385	
		Wall Lake	5,985	3,150	
5,000		Whitewater Creek	1,032	530	
		Williams Lake			
		Willow Creek, tributary to Pecos River	39	30	
		Willow Creek, tributary to Gila River	7,590	3,000	
		Winsor Creek	1,746	840	

*Part of these fish listed were New Mexico native cutthroat mixed with rainbow

RAINBOW TROUT PLANTED IN PRIVATE PONDS OPEN TO PUBLIC FISHING - 1971-72 Fiscal Year					
Catchable-size Trout (6 inches or Over)					
POND	LOCATION	RAINFORE		DOLLY VARDEN	
		Number	Pounds	Number	Pounds
Aggie Pond	Las Cruces	450	300		
Angostura Pond	Tres Ritos	258	134		
Arellano Pond	Tres Ritos	122	62		
Boy Scout Pond	Weed	312	260		
Brazos Lodge Pond	Chama	460	180		
Broken Arrow Pond	Chama	401	160	50	20
Cargo Pond	Rociada	106	80		
Chiujilla Well	Cuba	349	270		
Denton Pond	Chama	146	60		
Hoskins Pond	Tres Ritos	215	108		
Las Cruces Fair Pond	Las Cruces	150	100		
Martinez Pond	San Ignacio	235	180		
Mitchell Pond	Taos	110	44		
Mountain View Kids' Pond	Cowles	202	98		
Mountain View Pond	Cowles	1,055	455		
Park Lake	Santa Rosa	217	250		
Pine View Ponds	Tres Ritos	105	64		
Rancho Grande Pond	Reserve	1,000	690		
Sipapu Pond	Tres Ritos	214	108		
T or C Kids' Pond	Truth or Consequences	220	200		
Youngs Kids' Pond	Las Cruces	450	300		
Total Catchables		6,777	4,103	50	20

TROUT PLANTED, TRANSFERRED OR PRODUCED BY STATE HATCHERIES - 1971-72 Fiscal Year - Quantitative Rep.

	GLENNWOOD	LEWIS & CLARK	STANLEY	PARKVIEW	RED RIVER	SEVEN SPRINGS	ROCK LAKE	TOTAL
Number trout planted	347,048	389,939	1,031,688	996,928	150,272	182,567		3,078,442
Transfer between hatcheries	(78,010)	751,530	(294,831)	401,960	(91,168)	(689,481)		
Transferred to USFWS				500 ^a	1,511			2,011
Total planted and transferred	269,038	1,141,469	736,857	1,399,388	60,615	(506,914)		3,130,453
Inventory Adjustment	108,721	4,148	100,967	39,299	139,869	91,783		344,787
Number trout produced	377,759	1,145,617	1,197,824	1,438,687	200,484	(115,131)		3,945,240
Pounds trout planted	27,543.25	41,696.50	95,044.25	127,631.50	25,842.00	78,991.00		356,748.50
Transfer between hatcheries	(20,944)	12,323.50	(13,915.50)	39,532.00	(4,763.00)	(12,213.00)		
Transferred to USFWS				400 ^a	475			875
Total planted and transferred	6,599.25	54,020.00	81,128.75	167,563.50	21,554.00	66,778.00		397,623.50
Inventory adjustment	1,744.00	(2,683.50)	1,597.00	(34,776.00)	(1,830.00)	(5,040.00)		40,988.50
Pounds trout produced	8,343.25	51,336.50	82,725.75	132,787.50	19,724.00	61,718.00		356,635.00
Number in pound of trout planted	12.60	9.35	10.85	7.81	5.82	2		7.80
Average length (in.) trout planted	5.75-6.00	6.25-6.50	6.00-6.25	6.75-7.00	7.50-7.75	10.25-10.50		6.75-7.00
Trout planted & transferred - 6" & over - number	46,442	73,552	198,911	229,037	51,191	106,514		710,647
Trout planted & transferred - 6" & over - pounds	25,894	40,081	90,451	122,810	25,441	77,369		382,046.00
Number in pound	1.79	1.96	2.20	1.26	1.01	1.38		1.86
Average length - inches	11.00-11.25	10.75-11.00	10.25-10.50	11.00-11.25	10.75-11.00	12.00-13.00		11.00-11.25
Rainbow planted - number	242,952	180,189	470,262	639,212	64,991	182,567		1,780,173
Rainbow planted - pounds	26,983	41,650	79,802.50	127,553	25,411	78,991		380,390.50
Browns planted - number	93,920	21,500	174,073	288,368	59,215			637,076
Browns planted - pounds	30.25	5.00	43.75	60.00	13.00			152.00
N. H. cutthroat planted - number	10,176 ^{aa}	188,250	15,220	69,348	26,066			10,176 ^{aa} 298,884
N. H. cutthroat planted - pounds	530.00 ^{aa}	41.50	56.00	18.50	413.00			530.00 ^{aa} 534.00

	GLENNWOOD	LISBOA SPRINGS	PARKVIEW	RED RIVER	SEVEN SPRINGS	ROCK LAKE	TOTAL
Kokanee planted - number			111,132				111,132
Kokanee planted - pounds			63.00				63.00
Dolly Varden planted - number			218,498				218,498
Dolly Varden planted - pounds			14,192				14,192
Coho planted - number			42,503				42,503
Coho planted - pounds			887.00				887

* Transferred to New Mexico State Fair

** Rainbow - New Mexico Native Mixed

EYED TROUT EGGS RECEIVED AND THEIR COST - 1971-72 Fiscal Year									
SOURCE	EGGS	GLENNWOOD	LISBOA SPRINGS	PARKVIEW	RED RIVER	SEVEN SPRINGS	TOTAL EGGS	COST PER M	TOTAL COST
Plymouth Rock Trout Co.		100,000	200,000		347,760		647,760	\$3.25	\$ 2,105.22
					352,240		352,240	3.25	1,144.78
Trout Lodge Springs		370,000	394,000	250,000	1,522,000		2,536,000	2.90	7,354.40
Parkview Hatchery	Dolly Varden			470,236			470,236	.50	235.12
	Rainbow	100,050	795,720	1,496,016	1,018,546	241,280	3,651,612	.50	1,825.81
Seven Springs Hatchery	HMC		165,958		64,958	80,760	311,676	.17	52.98
Lotir Lake No. 7	HMC				11,448		11,448		
State of Colorado	Kokanee			115,116			115,116		11.03*
State of Oregon	Coho			250,000			250,000	3.00	889.73**
British Columbia	Wild Rainbow		57,000				57,000		47.50***
Total eggs		570,050	1,612,678	2,581,368	3,316,952	322,040	8,403,088		
Cost of eggs		1,448.03	2,266.17	2,608.89	7,209.11	134.37			13,066.57
Cost per M trout produced		3.83	1.98	2.18	5.01	0.68			3.46
Cost per pound of trout produced		0.174	0.044	0.032	0.054	0.007			0.038

* Cost for air freight

** Cost for air freight and customs inspection

*** Includes cost for air freight on egg cases

WARM-WATER FISH DISTRIBUTED BY DEPARTMENT OF GAME AND FISH - 1971-72 Fiscal Year

DATE	SOURCE OR PICK-UP POINT	WATER PLANTED	NUMBER	INCHES	POUNDS
CHANNEL CATFISH					
8-23-71	Dexter National Fish Hatchery	Stubblefield Lake	25,080	3	209
9-17-71	Cedar Bluff National Fish Hatchery	Chama River (Above Abiquiu)	77,750	4	687
11-30-71	Uvalde National Fish Hatchery	Pecos River (below Carlsbad)	30,000	5	938
11-30-71	Uvalde National Fish Hatchery	Carlsbad Municipal Lake	5,000	5	156
12-2-71	Ft. Worth National Fish Hatchery	Laballo Reservoir	69,000	3	395
5-8-72	Ft. Worth National Fish Hatchery	Lovington City Pond	780	7 - 9	166
5-8-72	Ft. Worth National Fish Hatchery	Green Meadow Lake	2,820	7 - 9	600
5-8-72	Ft. Worth National Fish Hatchery	Chaparral Lake	2,820	7 - 9	600
5-8-72	Ft. Worth National Fish Hatchery	Eunice Lake	2,039	7 - 9	434
5-8-72	Ft. Worth National Fish Hatchery	Black River	2,350	7 - 9	500
5-12-72	Ft. Worth National Fish Hatchery	Bottomless Lakes	3,150	7 - 9	500
5-12-72	Ft. Worth National Fish Hatchery	Rio Felix	1,890	7 - 9	300
5-10-72	Ft. Worth National Fish Hatchery	Beltrando Creek	3,780	7 - 9	600
5-10-72	Ft. Worth National Fish Hatchery	Swan Lake	1,045	7 - 9	166
5-10-72	Ft. Worth National Fish Hatchery	Green Acres Lake	3,150	7 - 9	500
5-10-72	Ft. Worth National Fish Hatchery	Oasis Park Lake	2,104	7 - 9	334
5-10-72	Ft. Worth National Fish Hatchery	Tres Lagunas	1,575	7 - 9	250
5-24-72	Dexter National Fish Hatchery	Carlsbad Municipal Lake	10,000	4	250
5-24-72	Dexter National Fish Hatchery	Pecos River (below Carlsbad)	10,000	4	250
5-25-72	Dexter National Fish Hatchery	Alamogordo Reservoir	10,000	4	250
6-16-72	Inks Dam National Fish Hatchery	Lake Van	6,000	7 - 9	1,000
6-16-72	Inks Dam National Fish Hatchery	Russell Kids' Pond	1,300	7 - 9	250
6-16-72	Inks Dam National Fish Hatchery	Bataan Lake	8,100	7 - 9	1,250
6-19-72	Inks Dam National Fish Hatchery	Youngs Park Lake	380	7 - 9	100
6-19-72	Inks Dam National Fish Hatchery	Alamogordo Kids' Pond	380	7 - 9	100
6-19-72	Inks Dam National Fish Hatchery	Aggie Pond	380	7 - 9	100
6-19-72	Inks Dam National Fish Hatchery	Bear Canyon Reservoir	3,230	7 - 9	850
6-19-72	Inks Dam National Fish Hatchery	Ft. Sumner River Pond	1,900	7 - 9	500
6-19-72	Inks Dam National Fish Hatchery	Ft. Sumner Old Fort Pond	380	7 - 9	100
6-19-72	Inks Dam National Fish Hatchery	Escondido Pond	2,090	7 - 9	250
Totals			288,473		12,880
LARGEMOUTH BASS					
7-71	Tishomingo National Fish Hatchery	Alamogordo Reservoir	100,000	1	100
5-25-72	Dexter National Fish Hatchery	Stubblefield Lake	100,800	1	112
5-25-72	Dexter National Fish Hatchery	Maxwell Lake 13	40,000	1	45
5-25-72	Dexter National Fish Hatchery	Alamogordo Reservoir	100,800	1	112
5-26-72	Dexter National Fish Hatchery	Elephant Butte	100,800	1	112
6-17-72	Tishomingo National Fish Hatchery	Elephant Butte	100,000	3/4	30
Totals			542,400		511
SMALLMOUTH BASS					
6-72	Cedar Bluff National Fish Hatchery	Ute Reservoir	24,000	Fry	2
NORTHERN PIKE					
10-26-71	T or C Hatchery	Elephant Butte	175	12	53
3-28-72	Cedar Bluff National Fish Hatchery	Conchas Reservoir	662,000	Fry)	
3-28-72	Cedar Bluff National Fish Hatchery	T or C Hatchery	670,000	Fry)	50
3-28-72	Cedar Bluff National Fish Hatchery	Rio Grande (below Elephant Butte)	268,000	Fry)	
5-11-72	T or C Hatchery	Elephant Butte	16,780	3 1/2	68
5-11-72	T or C Hatchery	Rio Grande (below Elephant Butte)	1,500	3 1/2	6
Totals			1,616,455		177

FISH OBTAINED FROM BUREAU OF SPORT FISHERIES AND WILDLIFE NATIONAL HATCHERIES FOR PUBLIC WATERS -
1971-72 Fiscal Year

WATER	WALLEYE	RAINBOW TROUT	LARGEMOUTH BASS	BLUEGILL	SMALLMOUTH BASS	CHANNEL CATFISH	TOTAL FISH
Abiquiu Reservoir & Chama River		150,000				103,480	253,480
Alamogordo Reservoir	507,000		56,220			185,800	742,020
Bataan Lake			10,320	3,000			13,320
Bear Canyon Reservoir			2,000				2,000
Berrendo Creek			2,100	1,000			3,100
Bill Evans Lake			6,000	5,000		6,000	17,000
Carlsbad Municipal Lake			20,500			10,010	30,510
Conchas Reservoir					14,050		14,050
Del Rio Drain			10,000			5,000	15,000
Elephant Butte	2,000,000						2,000,000
Eunice Lake				500			500
Garfield Drain						5,000	5,000
Gila River						5,000	5,000
Green Acres Lake			1,200	600			1,800
Green Meadow Lake				1,000			1,000
Hatch Drain						5,000	5,000
Heron Reservoir		652,330					652,330
Jackson Lake						10,080	10,080
Lake Farmington						10,080	10,080
Lake Van			5,720	2,000		4,230	11,950
Navajo Reservoir						50,000	50,000
Navajo Reservoir*		429,630					429,630
New Mexico Drain						5,000	5,000
Pecos River (Below Carlsbad)						10,010	10,010
Picacho Drain						5,000	5,000
Rincon Drain						5,000	5,000
Roswell Kids Pond			600	500			1,100
San Juan River						200,000	200,000
Stubblefield Lake				50,000		178,105	228,105
Tularosa Creek**		750					750
Ute Reservoir					66,000		66,000
Young Park Lake					500		500
					Grand Total		4,794,315

* Department assisted in distribution.

** Exchange

